euromex
microscopes holland

CATALOG
2023 • 2024
PART 3

MICROSCOPES FOR EDUCATION, LIFE SCIENCE AND INDUSTRY

contents

euromex
MICROSCOPE COLLECTION
2023 • 2024

about euromex

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 m^2 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

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

The broad product offering of Euromex can be found in this grand catalog and online at **www.euromex.com**

Physix Photonics bv is also a subsidiary of the Euromex Optics Group. Physix manufactures optical components and optical assemblies for OEM customers. The offering varies from plan optics, curved optics, specials optics to optical coatings. Detailed information about Physix Photonics can be found on **www.physix.com**

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

stereo microscopes

Stereo microscopes of Euromex are designed to provide high resolution three-dimensional images
These high-end microscopes are robust, ergonomic and enable long, eye fatigue-free
working sessions in both laboratory and industrial environments

ESD safe versions as well as long working distance set-ups are available

industry

stereo microscopes

product information

nexiuszoom

the new standard in stereo microscopy

NexiusZoom ESD | NexiusZoom GEM | NexiusZoom (EVO)

The NexiusZoom stereo microscopes enable you to examine your specimen with high-performance precision and generate two- and three-dimensional images allowing observation for your most demanding microscopy applications

These top level zoom microscopes are perfect for analyzing all kinds of material surfaces or for observing larger objects

NexiusZoom, -EVO and -ESD

The NexiusZoom, -EVO and NexiusZoom ESD stereo microscopes are supplied with a large choice of objectives and stands, with or without illumination. Ideal for all kinds of applications. Magnifications from 3.3 up to 220 times can be achieved with auxiliary lenses and eyepieces. ESD safe microscopes for the electronics industry complete this series

NZ.1903-U ESD

product information

NZ.1903-S
339 (h) x 256 (w) x 311 mm (d) | 5.1 kg
NZ.1903-P
299 (h) x 256 (w) x 311 mm (d) | 5.3 kg
For weight of other products see table

HIGHLIGHTS

- **Binocular and trinocular heads with HWF 10x/22 or HWF 10x/23 mm eyepieces**
- **Zoom 1:6.7 ratio, 6.7x to 45x or 1:8.4, 6.5x to 55x**
- **Ergonomic stands**
- **3 W LED illuminations**
- **Configurations up to 220x magnification**
- **ESD safe models available**
- **10 Years warranty**

NZ.1902-PG

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 with ± 5 diopter adjustments. Interpupillary distance adjustable between 54 mm and 75 mm. Trinocular head is supplied with a fixed light path beam splitter. 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. Working distance 110 mm

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

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

NZ.1703-AP

NZ.1902-A

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 gooseneck 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 stand, 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.
More illumination options see chapter 10 (Accessories)

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)

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

ESD SAFE MICROSCOPES

For inspection and assembly applications. Electrostatic discharge (ESD) is the unwanted sudden flow of electricity between two electrically charged objects. ESD can cause a range of harmful effects as well as permanent damage to solid state electronic components

Euromex therefore introduces electrostatic protected microscopes in the NexiusZoom range. The body and stand of the microscope are coated with a special static dissipative paint, eliminating harmful electrostatic discharges, making the microscopes suitable for all static-sensitive environments

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 and user manual.
All packed in a polystyrene box

Electrostatic discharge (ESD)

-

To select an ESD safe microscope model, please find them in the table on the next pages marked with suffix ESD

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	•		•							•	5.1
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

ESD SAFE

MODELS	Binocular	Trinocular	Pillar stand (-P)	Rack & pinion stand (-S)	Universal stand (-U)	Boom stand (-B)	Weight (kg)
NZ.1902-P-ESD	•		•				5.0
NZ.1902-S-ESD	•			•			4.9
NZ.1902-U-ESD	•				•		15.6
NZ.1902-B-ESD	•					•	22.1
NZ.1903-P-ESD		•	•				5.3
NZ.1903-S-ESD		•		•			5.1
NZ.1903-U-ESD		•			•		15.7
NZ.1903-B-ESD		•				•	22.2

MAGNIFICATIONS

NexiusZoom and NexiusZoom ESD: working distance and field of view with standard high wide field (HWF) 10x / 22 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.	F.o.v. in mm	Total mag.	F.o.v. in mm	Total mag.	F.o.v. in mm	Total mag.	F.o.v. in mm	Total mag.	F.o.v. in mm	Total mag.	F.o.v. in mm	Total mag.	F.o.v. 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 high wide field (HWF) 10x / 23 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.	F.o.v. in mm	Total mag.	F.o.v. in mm	Total mag.	F.o.v. in mm	Total mag.	F.o.v. in mm	Total mag.	F.o.v. in mm	Total mag.	F.o.v. in mm	Total mag.	F.o.v. 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

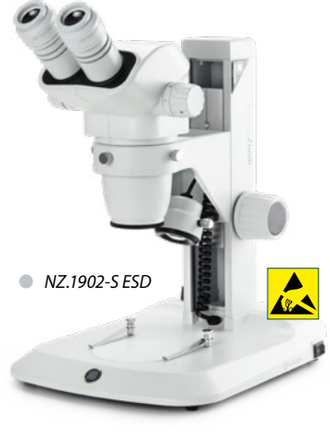
NZ.1903-U ESD

NZ.1902-B

NZ.1902-P

NZ.1902-U-ESD

NZ.1902-S



NZ.1902-S ESD

ACCESSORIES AND SPARE PARTS

HEADS & EYEPIECES

NZ.5302 NexiusZoom binocular head with eyepieces
NZ.5303 NexiusZoom trinocular head with eyepieces
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.6020-CM HWF 20x/12 mm eyepieces with 10/100 micrometer and crosshairs
NZ.6015 Pair of HWF 15x / 16 mm eyepieces
NZ.6020 Pair of HWF 20x / 12 mm eyepieces
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.6099 Pair of eyecups

NZ.5302 / NZ.5303

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

WD = Working distance

STANDS

NZ.9000 Ergo pillar stand, 35 cm, without illumination
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 Ergo 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
NZ.9090 NexiusZoom head holder (for NZ.9020, NZ. 9030 and NZ. 9032)

HEAD HOLDERS

NZ.9081 NZ 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

NZ = NexiusZoom

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
LE.5260 Interchangeable high power (standard) white 6,500K 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. 110 V and 230 V 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, 30 W 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

POLARIZATION ATTACHMENTS

NZ.9520 Polarization kit for NexiusZoom: 360° rotatable circular stage with built-in polarization filter (NZ.9524) + analyzer in mount to be screwed under the head (NZ.9525). Not suitable with auxiliary lenses
NZ.9524 360° rotatable circular stage with built-in polarization filter for NexiusZoom
NZ.9525 360° rotatable analyzer in mount to be screwed under the head of NexiusZoom. Not suitable for use in combination with auxiliary lenses

DARKFIELD ATTACHMENT

NZ.9040 Darkfield attachment (for -S and -P stands)

STAGES

NZ.9505 Mechanical 180 x 155 mm X-Y stage with 75 x 55 mm translation and transparent glass plate
AE.5168-NZ Heating stage with PID controller up to 50°C. Only with the purchase of a new microscope

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

Other T2 adapters on request

MISCELLANEOUS

NZ.8950 Protection glass for NexiusZoom head
NZ.9045 Fall protection ring for NexiusZoom pillars. Note: the one- and double arm stands are as a standard supplied with this ring
NZ.9570 Pair of object clamps for stage

NZ.9572	Adjustable GEM object clamp for -P, -PL and -S stands
NZ.9950	Standard opaque stage plate
NZ.9956	Black/white stage plate, Ø 95 mm
NZ.9958	Standard glass object plate, opaque, Ø 95 mm
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	Object micrometer 50 mm (divided in 500 parts on glass slide 76 x 26 mm)

DISPOSABLES

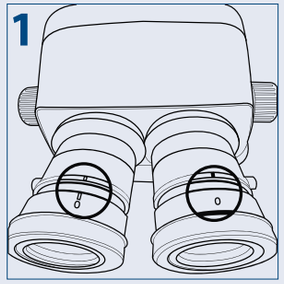
PB.5245	Lens cleaning paper, 100 sheets per pack
PB.5274	Isopropyl alcohol 99%, 200 ml
PB.5275	Cleaning kit: lens fluid, lint free lens tissue/ paper, brush, air blower, cotton swabs
PB.5276	Microscope maintenance and servicing kit, 16pcs: cleaning brush, 6 pcs screwdriver set, air blower, 3 pcs Allen 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

The LE.5212 in two different configurations

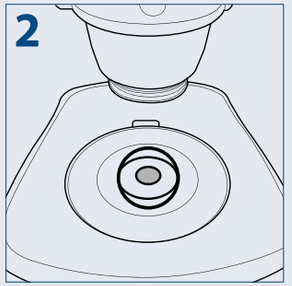
QUICK INSTALLATION

how to set up a **stereo microscope**

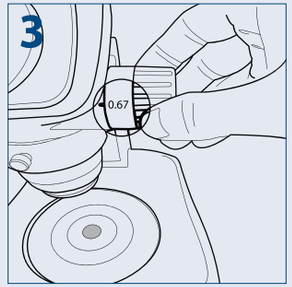
Setting up your stereo microscope properly is essential to getting parfocal images during the entire zoom range. It also prevents head aches, stressful eyes and fatigue. Below you will find a setup guide that will help get the best out of your microscope



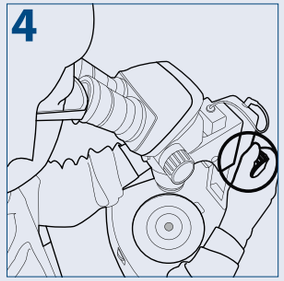
Turn the diopter adjustment rings of both eyepieces to position "0"



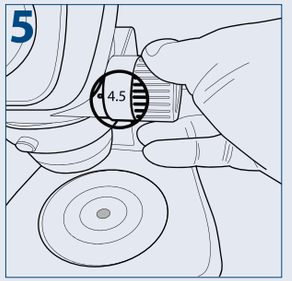
Put a specimen on the stage plate



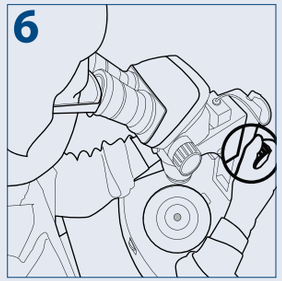
Turn the zoom adjustment knob to the lowest magnification



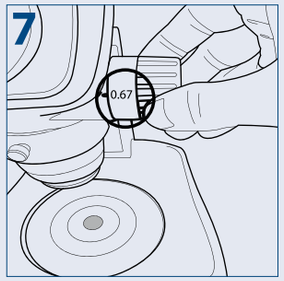
Rotate the focus adjustment knob to bring the specimen into focus



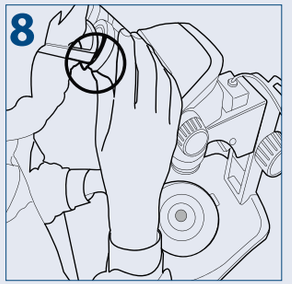
Turn the zoom adjustment knob to the highest magnification



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

MICROSCOPES FOR GEMOLOGY

NexiusZoom
for gemology

The specialized backwards tilting stand of the NexiusZoom and NexiusZoom EVO stereo microscopes for gemology applications offers 30 W halogen transmitted illumination towards the specimen at oblique angles. This enables the examination of your gems in perfect darkfield conditions. The stand is also available with 1 W LED or a 7 W fluorescent incident illumination for brightfield contrast

NZ.1902-GEML

product information

NZ.1903-GEML
510 (h) x 260 (w) x 310 mm (d) | 8.4 kg
NZ.1903-GEMF
510 (h) x 260 (w) x 310 mm (d) | 8.4 kg

NZ.1902 with backwards tilting stand

HIGHLIGHTS

- **Binocular and trinocular heads**
- **Standard HWF 10x eyepieces with 22 mm or 23 mm field of view**
- **Zoom objectives with 0.7 to 4.5x or 0.65 to 5.5x magnification**
- **Ergonomic backwards tilting stand**
- **30 Watt halogen transmitted illumination**
- **1 W LED or 7 W fluorescent incident illumination**
- **Configurations up to 220x magnification**

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 with ± 5 diopter adjustments. Interpupillary distance adjustable between 54 mm and 75 mm

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. Working distance approx. 110 mm
Auxiliary lenses 0.75x, 1.5x and 2.0x are available
All optics are anti-fungus treated and anti-reflection coated for maximum light throughput

STAND
Ergonomic stand with backwards 0 to 45° tilting arm with 76 mm head holder for darkfield and brightfield. Built-in 100-240 V power supply

STAGE
Flat darkfield stage with clamp object holder - which can be placed either on the right or on the left side - iris diaphragm and incident illumination

ILLUMINATION
30 Watt halogen transmitted illumination, adjustable intensity. 1 Watt LED, adjustable intensity, or 7 Watt fluorescent incident illumination, intensity not adjustable
Both illuminators can be used simultaneously

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

MODELS	Binocular	Tinocular	Objective 0.67-4.5	Objective 0.65-5.5	1 W LED incident illumination	7 W fluorescent incident illumination	30 W halogen transmitted illumination	Working distance (mm)
NZ.1902-GEML	•		•		•		•	110
NZ.1902-GEMF	•		•			•	•	110
NZ.1702-GEML	•			•	•		•	110
NZ.1702-GEMF	•			•		•	•	110
NZ.1903-GEML		•	•		•		•	110
NZ.1903-GEMF		•	•			•	•	110
NZ.1703-GEML		•		•	•		•	110
NZ.1703-GEMF		•		•		•	•	110

MAGNIFICATIONS

NexiusZoom WD and field of view with standard HWF 10x / 22 high wide field eyepieces

Zoom indication	Without auxiliary lens WD 110 mm		Auxiliary lens 0.75x WD 105 mm		Auxiliary lens 1.5x WD 53 mm		Auxiliary lens 2x WD 34 mm	
	Total magnification	Field of view in mm	Total magnification	Field of view in mm	Total magnification	Field of view in mm	Total magnification	Field of view in mm
0.67	6.7	32.8	5.0	43.8	10.1	21.9	13.4	16.4
0.7	7.0	31.4	5.3	41.9	10.5	21.0	14.0	15.7
0.8	8.0	27.5	6.0	36.7	12.0	18.3	16.0	13.8
1.0	10.0	22.0	7.5	29.3	15.0	14.7	20.0	11.0
1.5	15.0	14.7	11.3	19.6	22.5	9.8	30.0	7.3
2.0	20.0	11.0	15.0	14.7	30.0	7.3	40.0	5.5
3.0	30.0	7.3	22.5	9.8	45.0	4.9	60.0	3.7
4.0	40.0	5.5	30.0	7.3	60.0	3.7	80.0	2.8
4.5	45.0	4.9	33.8	6.5	67.5	3.3	90.0	2.4

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

Zoom indication	Without auxiliary lens WD 110 mm		Auxiliary lens 0.75x WD 105 mm		Auxiliary lens 1.5x WD 53 mm		Auxiliary lens 2x WD 34 mm	
	Total magnification	Field of view in mm	Total magnification	Field of view in mm	Total magnification	Field of view in mm	Total magnification	Field of view in mm
0.65	6.5	35.4	4.9	47.2	9.8	23.6	13.0	17.7
0.7	7.0	32.9	5.3	43.4	10.5	21.9	14.0	16.4
0.8	8.0	28.8	6.0	38.3	12.0	19.2	16.0	14.4
1.0	10.0	23.0	7.5	30.7	15.0	15.3	20.0	11.5
1.5	15.0	15.3	11.3	20.4	22.5	10.2	30.0	7.7
2.0	20.0	11.5	15.0	15.3	30.0	7.7	40.0	5.8
3.0	30.0	7.7	22.5	10.2	45.0	5.1	60.0	3.8
4.0	40.0	5.8	30.0	7.7	60.0	3.8	80.0	2..9
4.5	45.0	5.1	33.8	6.8	67.5	3.4	90.0	2.6
5.5	55.0	4.2	41.3	5.6	82.5	2.8	110	2.1

ACCESSORIES AND SPARE PARTS

HEADS & EYEPIECES

NZ.5302 NexiusZoom binocular head with eyepieces
NZ.5303 NexiusZoom trinocular head with eyepieces
NZ.5312 NexiusZoom EVO binocular head with eyepieces
NZ.5313 NexiusZoom EVO trinocular head with eyepieces

NZ.6010 Pair of HWF 10x / 22 mm eyepieces
NZ.6210 Pair of HWF 10x / 23 mm eyepieces. Only suitable for NexiusZoom EVO
NZ.6015 Pair of HWF 15x / 16 mm eyepieces
NZ.6020 Pair of HWF 20x / 12 mm eyepieces
NZ.6099 Pair of eyecups

AUXILIARY LENSES

NZ.8907 Auxiliary lens 0.75x. WD 105 mm
NZ.8915 Auxiliary lens 1.5x. WD 53 mm
NZ.8920 Auxiliary lens 2.0x. WD 34 mm
Not suitable for NZ.1902-S and NZ.1903-S

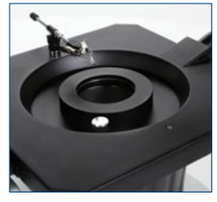
WD = working distance

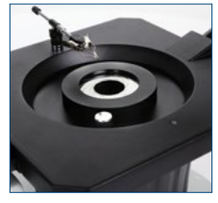
CAMERA ACCESSORIES

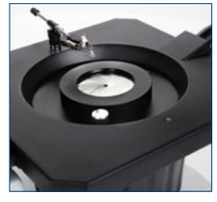
NZ.9850 C-mount adapter with 0.5x lens for 1/2" cameras
Suitable for trinocular models
AE.5130 Universal SLR camera adapter with 2x projection lens for 23.2 mm tubes. Needs T2 adapter
AE.5020 T2 adapter for Nikon D digital SLR cameras
AE.5040 T2 adapter for Canon EOS digital SLR cameras
Other T2 adapters on request

MISCELLANEOUS

NZ.8950 Protection glass for NexiusZoom head
Not suitable with auxiliary lenses
NZ.9525 360° rotatable analyzer in mount to be screwed under head of NexiusZoom
NZ.9527 Polarization filter for GEM stands of NexiusZoom
NZ.9572-G Adjustable GEM object clamp for NexiusZoom with tilting stand for gemology
AE.1112 Object micrometer 50 mm (divided in 500 parts on glass slide 76 x 26 mm)
SL.3678 Halogen spare bulb 6V, 30 W for NexiusZoom gemology







- *The clamp holder allows precise positioning of objects*
- *The variable iris diaphragm is used for maximizing contrast*
- *Brightfield/darkfield switch for transmitted illumination for maximum flexibility*

NZ.5302 / NZ.5303

STEREO MICROSCOPES

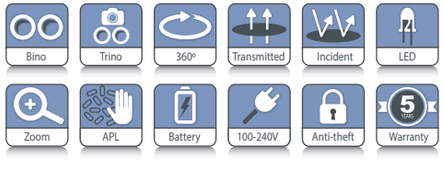
BlueLine DUTCH QUALITY

StereoBlue

Stereo microscopes of the StereoBlue series are especially developed for industrial applications and are greatly appreciated by geologists, mechanical and electronic engineers and other professionals such as jewelers and dental technicians

SB.1903

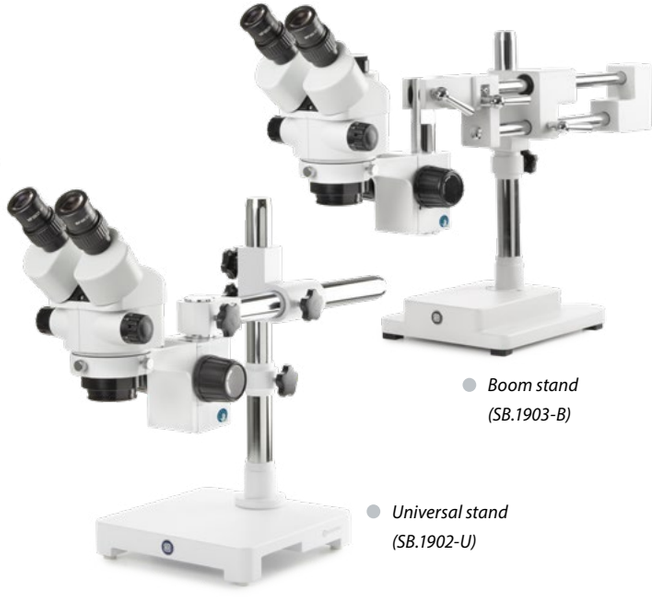
product information



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

- **Binocular and trinocular models**
- **WF 10x/21 mm eyepieces**
- **Dual 1x/3x or 2x/4x magnification objectives**
- **Zoom stereo 0.7x to 4.5x objective/ 0.5x to 5.5 objective**
- **Ergonomic stands**
- **Available in ergonomic rack & pinion, pillar, universal and boom stands**
- **3 W LED illuminators**
- **Also available with batteries**
- **Built-in ring light**
- **Ergonomic carrying grip**
- **5 Years warranty**



Boom stand (SB.1903-B)

Universal stand (SB.1902-U)

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-S/1402-S, which have diopter adjustment on one eyepiece
- Interpupillary distance adjustable between 55 mm and 75 mm
- Trinocular head is supplied with a fixed light path beam splitter

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

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

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

WD = working distance

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 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

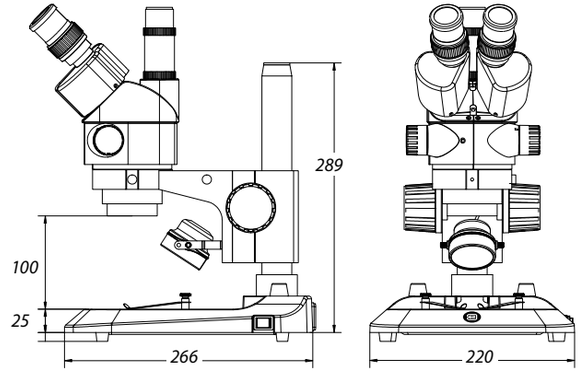
SB.9850 C-mount adapter with 0.5x lens for 1/2" cameras. Only for trinocular models
AE.5130 Universal SLR camera adapter with 2x projection lens for 23.2 mm tubes. Needs T2 adapter
AE.5025 T2 adapter for Nikon D digital SLR cameras
AE.5040 T2 adapter for Canon EOS digital SLR cameras

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

DIMENSIONS



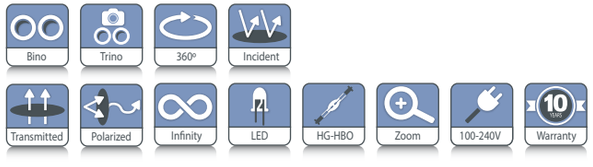
DZ series

DZ series

The modular stereo microscopes of the DZ series can be built around no less than three different central zoom units with respectively zoom ratios from 0.8 to 5 times, 0.8 to 6.4 times or 0.8 to 8 times. Thanks to the modular design of this series, you can adapt the instrument to your individual needs. To build your own microscope just select a central zoom unit, a pair of eyepieces, one of the available objectives, stands and other accessories

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

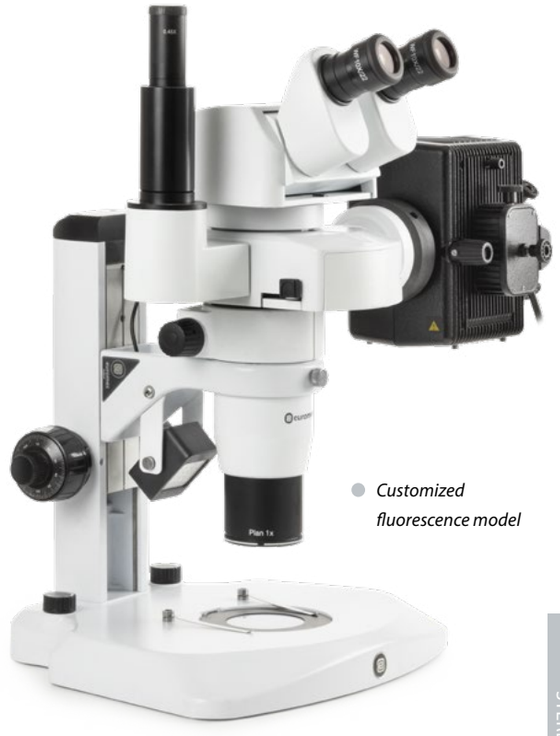
product information



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

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 4 to 320x**
- **Fields of view from 55 to 1.4 mm**
- **Working distances from 126 to 33 mm**
- **Ergonomic rack and pinion stands, universal stand or articulated arm stand**
- **Transmitted and incident LED illumination**
- **100 W epi-fluorescence mercury vapor illuminator**
- **10 Years warranty**



Customized fluorescence model

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 (working distance 126 mm) and 2x (WD 33 mm) are also available

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

STAND

Large ergonomic stand with Ø 100 mm object plate and 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 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	•		•		

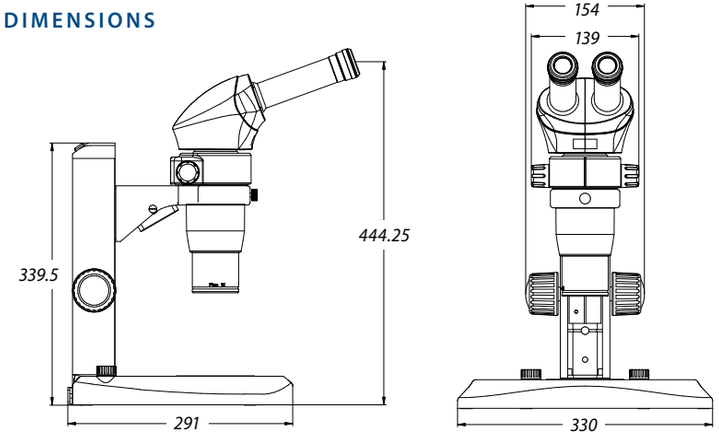
All equipped with EWF 10x/22 mm eyepieces

MAGNIFICATIONS AND FIELDS OF VIEW FOR STANDARD CONFIGURATIONS

MODELS		Zoom indication	0.5x Objective WD 126 mm Total magnification	0.5x Objective WD 126 mm Field of view	1.0x Objective WD 78 mm Total magnification	1.0x Objective WD 78 mm Field of view	2.0x Objective WD 33 mm Total magnification	2.0x Objective WD 33 mm Field of view
DZ.1100 / DZ.1105		0.8x	4x	55	8x	27.5	16x	13.7
		1.0x	5x	44	10x	22	20x	11
	DZ.1600 / DZ.1605	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
	DZ.1800 / DZ.1805	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

All equipped with EWF 10x/22 mm eyepieces

DIMENSIONS



BUILD YOUR OWN MICROSCOPE

A customized DZ series stereo microscope can be configured to customer's specifications by choosing one of the three central zoom units DZ.0630, DZ.0800 or DZ.1000 and adding the necessary components for the application. 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

ACCESSORIES/SPARE PARTS

CENTRAL ZOOM UNITS

DZ.0630 Central zoom unit 1:6.3 unit with magnifications from 8 to 50 times

DZ.0800 Central zoom unit 1:8 unit with magnifications from 8 to 64 times

DZ.1000 Central zoom unit 1:10 unit with magnifications from 8 to 80 times

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

WD = Working distance

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

Eyepieces

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

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 fluorescence filters available on request

Each cube needs two emission fluorescence filters

- *Customized configuration model DZ.0800, 2x DZ.3010, DZ.2025, DZ.9005, DZ.9010, DZ.4010 and DZ.5040*

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

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 100mm

AE.1903 Acrylic white/black object plate, Ø 100mm

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)

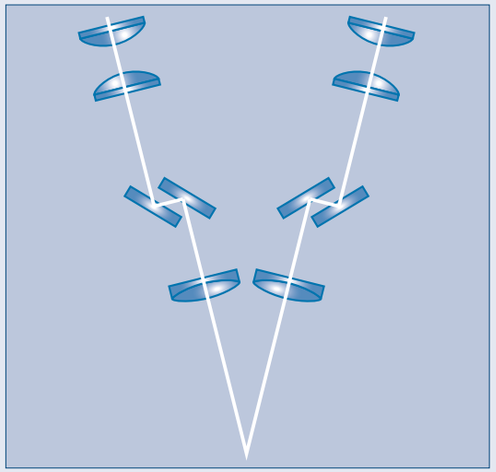
PB.5275 Cleaning kit: lens cleaning fluid, lint free lens tissue, brush, air blower, cotton swabs

about
stereo microscopes

Most modern stereo microscopes are built according to two concepts: the Greenough and the common main objective (CMO). The Greenough system is named after the American instrument designer, Horatio S. Greenough, who introduced this concept in the early 1890's; it is a system that became the workhouse for biological dissection in the 20th century. Much later, in 1957, a stereo zoom microscope with a common main objective was introduced in the United States by the American Optical Company

greenough

principle

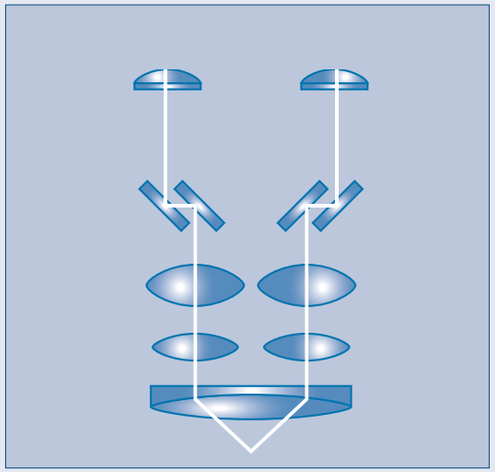


Two optical trains with their optical axes under a small angle generate two images of the object

Low cost
Compact
Magnifications[1] up to approximately 100x
Good quality
Production environment

common main objective (CMO)

principle



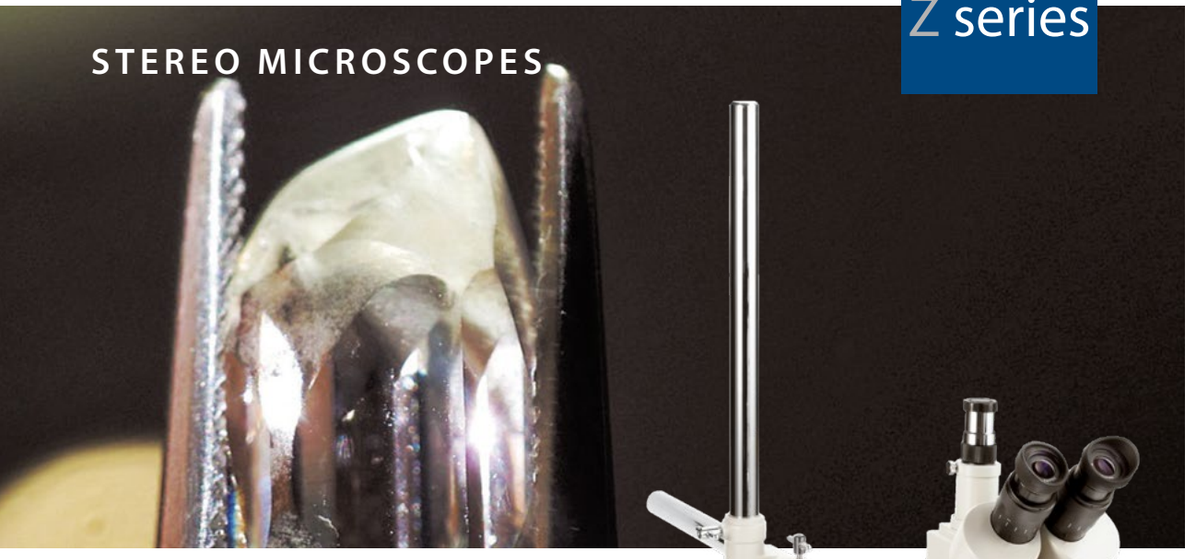
Two parallel optical trains share a common main objective and generate two images under a small angle

Allows modular systems (infinity optical system)
Enables higher magnifications[2], up to 300x
Upgradeable[3]
High imaging quality
Research and development labs

[1] Objective without auxiliary lenses and with 10x eyepieces
[2] With 10x eyepieces
[3] The parallel system allows many accessories such as photo and epi-fluorescence attachments, iris diaphragms, beam splitters to be added

STEREO MICROSCOPES

Z series



Z series

These versatile high-end stereo microscopes are highly appreciated by the professional research teams and industry for the excellent optical and mechanical characteristics. Indispensable for a reliable quality inspection of industrial products.
Certain components are also integrated in machines.
Depending on the application, the microscopes can be configured with different zoom heads, together with other components such as eyepieces, additional lenses, stands, stages, filters, etc

ST.1720, ZE.1654 and LE.5210, LE.5239

product information

ZE.1654
210 (h) x 155 (w) x 210 mm (d) | 2.5 kg
ST.1720
780 (h) x 270 (w) x 740 (max) mm (d) | 19 kg

HIGHLIGHTS

- **Modular system**
- **Binocular and trinocular models**
- **Standard SWF 10x/23 mm eyepieces**
- **Stereo zoom heads with a fixed 45° inclined tubes**
- **Zoom magnification objectives**
- **Superior resolution optics**
- **Multiple stands**
- **10 Years warranty**

ZE.1657 - ST.1710

SPECIFICATIONS

EYEPIECES

Pair of SWF 10x/23 mm eyepieces

HEAD

- Binocular or trinocular heads with a 45° inclined tubes
- Diopter ± 6° 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 Ø 20 mm
Dimensions 250 (h) x 150 (w) x 240 mm (d)

ST.1718 Pillar ergonomically flat stand with ST.1790 head holder. Pillar height 213 mm, diameter Ø 20 mm.
Dimensions 258 (h) x 330 (w) x 306 (d)

STANDS WITH ILLUMINATION

ST.1740 Rack & pinion stand with 10 W halogen illumination. Supplied with frosted filter for transmitted illumination and a blue filter for incident illumination. Both illuminations are adjustable and can be used simultaneously. With integrated power supply.
Dimensions: 290 (h) x 160 (w) x 240 mm (d)
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. Working distance: 0 - 295 mm

65.983 Head holder 85 mm diameter for 65.980

FOCUSING

Coarse adjustment and friction adjustment for head holders for ST.1790, ST.1794, ST1796. The head holder 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

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*
Head holder with coarse adjustment and opening for one fiber light guide*

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

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

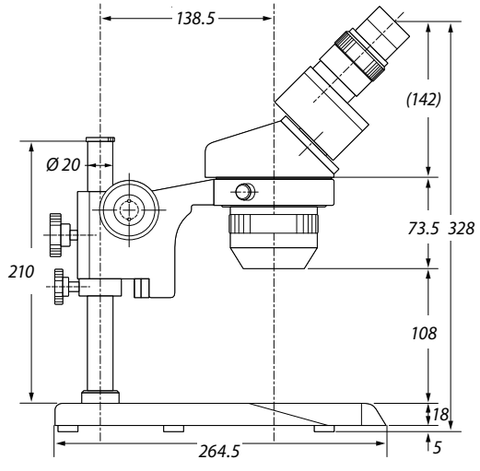
** When the trinocular tube is engaged, the image is still available in both eyepieces*
All zoom stereo heads are supplied with SWF 10x/23 mm eyepieces without eyecups

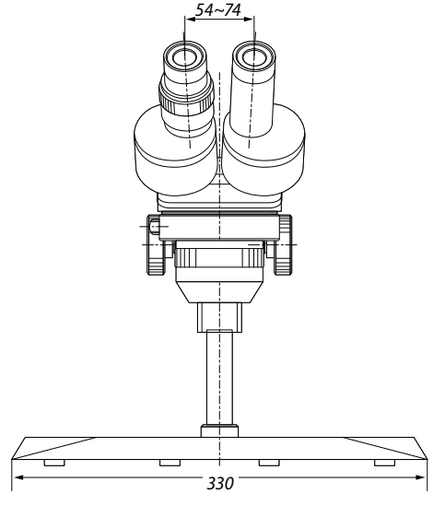
STANDS

MODELS	Column (mm)	Diameter (mm)	Rack & pinion	Base (w x d mm)	Height (mm)	Head holder	Illumination
ST.1710	210	20		240 x 150	258	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





ST.1710

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 glasses

MICROMETER EYEPIECES

(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 50mm/500, 100 µm/division

ADDITIONAL LENSES

(for ZE.1659)

AE.1822 Additional 0.57x lens. WD 300 mm

ADDITIONAL LENSES

(for ZE.1624, ZE.1654, 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 LENS

(for ZE.1657)

AE.1818 Additional 1.5x lens. WD 57 mm

WD = workong disctance

PROTECTION WINDOW

(to be screwed under the objectives)

AE.1845 Protection window for all heads of ZE series except ZE.1659

MECHANICAL STAGES

AE.1876 Plain stage 145 x 115 mm with 75 x 50 mm X-Y mechanical stage on ball bearings. Horizontal coaxial adjustment. Double Vernier with 0.1 mm graduations. Only with ST.1710 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

FUSES

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

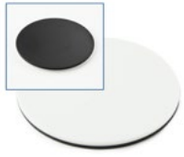
AE.5040 T2 adapter for Canon EOS digital SLR cameras

Other T2 adapters on request

AE.1845 Protection window

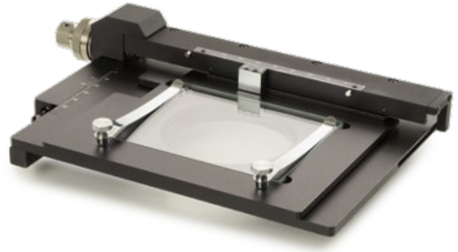
AE.1825 Protection window for ZE.1659

AE.5446 Orientable clamp for gems



AE.1882 Acrylic black/white object plate

AE.1877



AE.1896 Stage 145 x 115 mm with central glass object plate

AE.1876

STEREO MICROSCOPES

BE-50 series

Stereo microscopes of the BE-50 series with interchangeable objectives mounted in a slider are intensively used in the industry. The high depth of field and the extra large working distance are the main characteristics of this stereo microscope

These characteristics allow users to work under the microscope with ease. Ideal for jewelers, watchmakers, soldering, quality inspection and so on

A 44 cm flexible arm LED light source makes sure the object can be illuminated from any angle. The heavy metal base makes this system very stable. Magnifications vary from 2.5x to 40x

product information

BE.1812

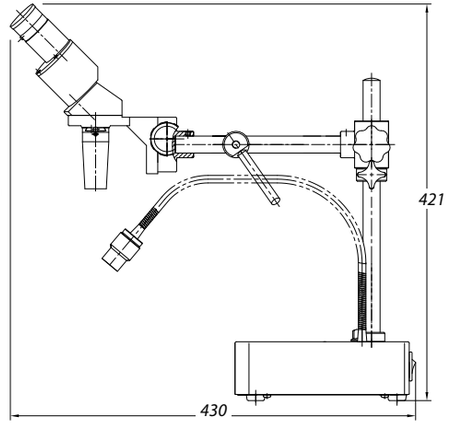
BE-50
345 (h) x 130 (w) x 410 mm (d) | 7.0 kg

HIGHLIGHTS

- **Professional stereo microscopes for extra long working distances**
- **Interchangeable magnifications from 2.5x up to 40x**
- **Overhanging stand**
- **Large working area**
- **LED illumination**
- **5 Years warranty**

BE.7405 / BE.7410 / BE.7420

DIMENSIONS



SPECIFICATIONS

EYEPIECES

Pair of WF 10x/20 mm

HEAD

Binocular 45° inclined tube. Interpupillary distance adjustable between 55 and 75 mm

STAND

Stable overhanging heavy base stand with pillar

FOCUSING ADJUSTMENT

Coarse adjustment with tension control

ILLUMINATION

Incident 1 W LED illumination 44 cm on flexible arm.
Intensity is adjustable

OBJECTIVES

- Comes with 0.5x fixed magnification objective, magnification 5x, field of view 40 mm. Working distance 250 mm
- Additional 1x fixed magnification objective available, magnification 10x, field of view 20 mm. Working distance 230 mm
- Additional 2x fixed magnification objective available, magnification 20x, field of view 10 mm. Working distance 119 mm

Other magnifications available with optional eyepieces up to 40x
All optics are anti-fungus treated and anti-reflection coated for maximum light throughput

ACCESSORIES AND SPARE PARTS

BE.6005	Pair of HWF 5x/22 mm eyepieces
BE.6010	Pair of HWF 10x/20 mm eyepieces
BE.6015	Pair of HWF 15x/12 mm eyepieces
BE.6020	Pair of HWF 20x/10 mm eyepieces
BE.6110	HWF 10x/20 mm eyepiece with micrometer
BE.6099	Pair of eyecups
BE.7405	0.5x objective for BE-50 LED. WD 250 mm
BE.7410	1.0x objective for BE-50 LED. WD 230 mm
BE.7420	2.0x objective for BE-50 LED. WD 119 mm
AE.1112	Micrometer slide, 50 mm/50 divisions

MODELS	Binocular	0.5x objective	1.0x objective	2.0x objective	WD	LED illumination
BE.1802	•	•			250 mm	•
BE.1812	•		•		230 mm	•
BE.1820	•			•	119 mm	•

STEREO MICROSCOPES

P series

P series

The microscopes of the P series are specifically designed for industrial purposes and come in 10/30x or 20x/40x magnification versions.
By using optional eyepieces magnifications from 5x to 80x can be achieved

These microscopes are equipped with a rack & pinion stand and a 360° rotatable head

The P series are compact and lightweight, ideal microscopes for industrial applications either in a workshop or for field work

product information

60.200 (P-20)

Bino · 360° · Incident · Transmitted · LED · Halogen · APL · Battery · 100-240V · 100-240V · 5 YEARS Warranty

60.100 / 60.200
315 (h) x 120 (w) x 190 mm (d) | 2.5 kg

HIGHLIGHTS

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

60.100 (P-10)

SPECIFICATIONS

EYEPIECES

Pair of secured wide field eyepieces WF 10x/20 mm.
Supplied with eyecups

HEAD

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

OBJECTIVES

- The P-10 and P-10 LED models are supplied with revolving 1x/3x objectives for total magnification of 10 and 30 times with a field of view from 20 to 6.7 mm
- The P-20 and P20-8 LED models are supplied with revolving 2x/4x objectives for total magnification of 20 and 40 times with a field of view from 10 to 5 mm
- Magnifications of 5 to 80x can be achieved by using 5x, 15x or 20x eyepieces

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

STAND

Robust pillar stand with 35 mm coarse adjustment.
Supplied with black/white 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 and with three rechargeable AA batteries for maximum 35 hours continuous cordless operation. Both illuminators can be operated independently or simultaneously.
Supplied with external mains adapter

CAMERAS

Euromex offers a wide range of industrial and laboratory grade cameras, see chapter 10 (Digital solutions).
For P series, the camera replaces one of the eyepieces

PACKAGE CONTENT

Supplied with power cord, three rechargeable AA batteriies, 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

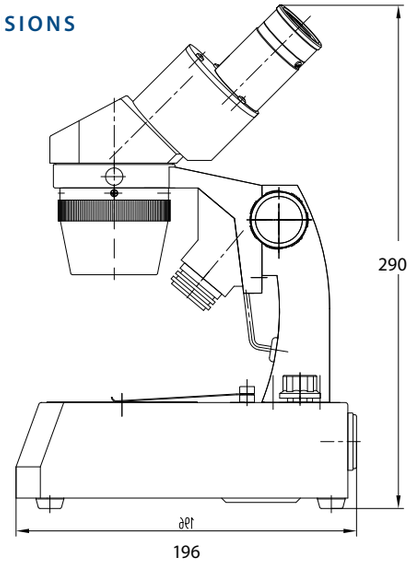
MISCELLANEOUS

50.871 Black/white stage plate Ø 94 mm
50.873 Glass stage plate Ø 94 mm
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



50.810 50.815 50.820

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)	•		•			•	•

about
magnifiers

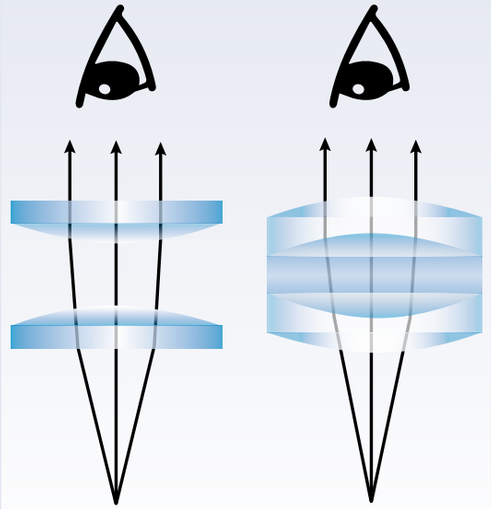
A basic magnifier consists of a convex lens that is mounted in a frame and handle to magnify an object. Lenses have been widely used in the Mediterranean region and Middle East over several millennia

Basic magnifying glasses have low magnifications from 2 to 6 times. The magnification of such a basic magnifier depends upon the position between the user's eye, the object being viewed and the total distance between them
At higher magnifications, the image quality decreases rapidly due to important spherical aberration

Doublet and triplet magnifiers with multiple lenses enable higher magnifications from 10 to 30 times
These are often mounted in a cylindrical holder with no handle (often called a "loupe")
Such magnifiers have very small apertures and they must be placed close to both the object and the eye

Other types of loupes are designed to be put on the table or sample, without or with micrometer scales in order to perform quick measurements

For magnification beyond 30 times, a stereomicroscope must be used



industry
materials science

materials science

Microscopes for materials science applications have specific objectives and other tools such as incident illuminations, polarization and compensation filters. This allows precise observation of materials such as metals, plastics, minerals, glass, wood and chemical materials

Euromex offers a range of metallurgical microscopes, microscopes with rotatable stages and strain-free objectives for polarized light observation and inverted materials science microscopes

product information

MATERIALS SCIENCE MICROSCOPES

iscope®

NeoLED™ euromex optical technology

iScope®

for materials science

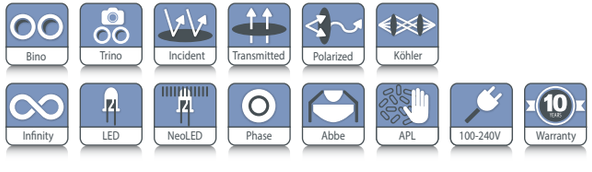
The iScope® microscopes are supplied with specific attachments that turn the iScope® into a state-of-the-art materials science microscope, suitable for various applications

There are two types of materials science microscopes; metallurgical and polarization microscopes

IS.1053-PLMi

IS metallurgical

IS polarization



IS.1053-PLMi
585 (h) x 210 (w) x 480 mm (d) | 10.5 kg
IS.1053-PLPOLRi
590 (h) x 210 (w) x 475 mm (d) | 12.3 kg

HIGHLIGHTS

- **EWF 10x/20 mm and EWF 10x/22 mm eyepieces**
- **Binocular and trinocular models**
- **Reversed revolving nosepiece**
- **Infinity corrected IOS objectives for material observation and polarization**
- **150 x 140 mm rackless stage equipped with metal and glass inserts**
- **Ø 160 mm rotatable circular stage for polarization models**
- **Diascopic 3 W NeoLED™ Köhler illumination**
- **Epi-NeoLED™ illumination for metallurgical models**
- **50 W Epi-illumination for polarization models**
- **iCare sensor for energy saving**
- **CSS - Cable Storage System**
- **10 Years warranty**

IS.1053-PLPOLRi

SPECIFICATIONS

EYEPIECES

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

HEAD

Binocular and trinocular Siedentopf type heads with 30° inclined tubes. Interpupillary distance from 48 to 76 mm. Two ± 5 diopter adjustments. A unique rotating system allows ergonomic positioning of both tubes in a high (431 mm) and in a low position (397 mm).
Optional photo C-mount adapters with built-in 0.33x or 0.5x objective fits the trinocular head with 23.2 mm tube

NOSEPIECE

Models for polarization are supplied with reversed revolving quadruple nosepiece. Other models have a reversed quintuple nosepiece on ball bearings

STAGE

- 150 x 140 mm rackless stage equipped with double slide holder and integrated 78 x 53 mm mechanical stage. Supplied with a plain metal and plain glass insert
- Ø 160 mm circular stage for polarization models, 360° rotatable with Vernier and two object clamps; an optional 30 x 40 mm X-Y mechanical stage is available

A ceramic stage is also available on request

STANDARD CONDENSER

Metallurgical models are equipped with height adjustable Abbe N.A. 1.25 condenser with iris diaphragm. Suitable for slider with darkfield stop for magnifications up to maximum 400x. Optional height adjustable Abbe N.A. 0.9/1.25 swing-out condenser with iris diaphragm

CONDENSER

for polarization

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

FOCUSING

Coaxial coarse and fine adjustments, 200 graduations, 1 µm per graduation, 200 µm per rotation, total travel range is approximately 24 mm (20 mm for metallurgical versions) and is supplied with an adjustable rack stop to prevent damage to sample and objectives. The coarse adjustment is equipped with friction control

TRANSMITTED ILLUMINATION

Intensity adjustable 3 W Köhler NeoLED™ illumination with internal 100-240 V power supply. The larger aperture of NeoLED™ allows the optical systems of the iScope® microscope to produce images at higher resolutions, very close to the theoretical diffraction limit of the optics. Other benefits for choosing NeoLED™ are low energy consumption, no heating and a long operating life span.
The Köhler setting provides homogeneous illumination and high contrast. Polarisation models with transmitted light only are supplied with: 360° rotatable polarization filter, 360° rotatable analyzer with 180 increments and nonius for 0.2 degree readout, Bertrand lens (build-in), 1 λ first red and 1/4 λ retardation plate, a quartz wedge, 45 mm green and blue filters for lamp house

REFLECTED ILLUMINATION

for metallurgical models

Metallurgical models are equipped with a reflected NeoLED™ illumination and external 100-240 V power supply. Supplied with a 0-90° polarization filter in slider, fixed analyzer in slider, white, green, blue and yellow filters

REFLECTED ILLUMINATION

for polarization models

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

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, spare fuse and user manual. All packed in polystyrene boxes

OBJECTIVES

Plan PLMi IOS [1]	5x/0,12	10/0.25	20x/0.40		50x/0.70		S100x/0.80 [5]
Plan PLPOLi IOS [2]	5x/0.12	10/0.25	20x/0.40	S40x/0.65		S60x/0.80 (6)	S100x/1.25 [5]
Plan PLPOLRi IOS [3]	5x/0.12	10/0.25	20x/0.40		50x/0.70		S100x/0.80 [5]
Plan PLi IOS [4]	4x/0.10	10/0.25	20x/0.40	S40x/0.65		S60x/0.85 (6)	S100x/1.25 [5]

[1] Plan PLMi Infinity corrected objectives for observation of materials. No cover glass correction
[2] Plan PLPOLi strain free infinity corrected objectives for polarization applications. With 0.17 mm cover glass correction. For transmitted illumination
[3] Plan PLPOLRi strain free Infinity corrected objectives for polarization applications. No cover glass correction. For reflected illumination attachment
[4] Plan PLi infinity corrected objectives for asbestos research. With 0.17 mm cover glass correction
[5] Optional objectives

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

IS.1052-PLPOLi

ISCOPE® POLARIZATION MODELS

MODELS	Bino	Trino	EWF 10x/20 mm[4]	EWF 10x/22 mm[4]	Plan PLPOLi 5x/10x/20x/ S40x IOS objectives[1]	Plan PLPOLRi 5x/10x/20x/ S50x IOS objectives[2]	Ø160 mm stage, 360° rotatable	Polarization condenser with gratuated 360° polarizer	Transmitted illumination Köhler LED	50W 12V halogen epi-illumination[3]
IS.1052-PLPOLi	•			•	•		•	•	•	
IS.1053-PLPOLi		•		•	•		•	•	•	
IS.1052-PLPOLRi	•		•			•	•	•	•	•
IS.1053-PLPOLRi		•	•			•	•	•	•	•

[1] Strain free objectives with 0.17 mm cover glass correction
[2] Strain free objectives without 0.17 mm cover glass correction
[3] The reflected 50 W illumination attachment of the IS.1052-PLPOLRi and IS.1053-POLRi models are equipped with a 360° rotatable polarization filter, analyzer, Bertrand lens, 1 λ first red plate, 1/4 λ retardation plate, a quartz wedge, slider with green and blue filter. External 240 or 115 Vac/ 12 Dc 4.16 A power supply
[4] The iScope® polarization models are supplied with one eyepiece with crosshairs and one eyepiece with crosshairs and 10/100 micrometer

ISCOPE® METALLURGICAL MODEL

MODEL	Bino	Trino	EWF 10x/20 mm	Plan PLMi 5x/10x/20x/ S50x IOS objectives *	Mechanical rackless stage	Abbe condenser	Köhler 3 W LED	Metallurgical attachment with NeoLED™ epi-illumination
IS.1053-PLMi		•	•	•	•	•	•	•

**Objectives without cover glass correction*

The reflected illumination attachment is supplied with a 0-90° polarizer mounted in a slider, a fixed analyzer in slider, a white, yellow and blue filter, all mounted in a slider. External 100-240 Vac/ 7.5 Dc power adapter

Note:
the iScope® model is equipped with a 87/230 x 140 mm rackless stage with double slide holder and integrated 79 x 52 mm mechanical stage. The iScope® rackless stage has no protruding parts, enables more smooth movements and is safer to work with (see photo on the right)

ACCESSORIES AND SPARE PARTS

EYEPIECES

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.6215-CM EWF 15x/16 mm eyepiece with 10/100 micrometer and crosshairs*
IS.6220 WF 20x/12 mm eyepiece*
IS.6299 Pair of eyecups for infinity corrected iScope® models
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*

** Ø 30 mm tube*

PLAN PLMI INFINITY CORRECTED IOS OBJECTIVES FOR MATERIALS SCIENCE

IS.8105 Plan PLMi 5x/0.12 IOS objective. * WD 15.5 mm
IS.8110 Plan PLMi 10x/0.25 IOS objective. * WD 10 mm
IS.8120 Plan PLMi 20x/0.40 IOS objective. * WD 4.3 mm
IS.8150 Plan PLMi S50x/0.70 IOS objective. * WD 0.32 mm
IS.8100 Plan PLMi S100x/0.80 IOS objective. * WD 2 mm

** No cover glass correction*

PLAN PLPOLRI INFINITY CORRECTED IOS OBJECTIVES FOR POLARIZATION

with reflected illumination attachment

IS.7905-R Plan PLPOLi 5x/0.12 IOS objective. * WD 15.5 mm
IS.7910-R Plan PLPOLi 10x/0.25 IOS objective. * WD 10 mm
IS.7920-R Plan PLPOLi 20x/0.40 IOS objective * WD 5.8 mm
IS.7950-R Plan PLPOLi S50x/0.75 IOS objective. * WD 0.92 mm
IS.7900-R Plan PLPOLi S100x/0.80 IOS objective. * WD 2 mm

** No cover glass correction*

PLAN PLPOLI INFINITY CORRECTED IOS OBJECTIVES FOR POLARIZATION

without reflected illumination attachment

IS.7905-T Plan PLPOLi 5x/0.12 IOS objective. * WD 15.5 mm
IS.7910-T Plan PLPOLi 10x/0.25 IOS objective. * WD 10 mm
IS.7920-T Plan PLPOLi 20x/0.40 IOS objective. ** WD 5.1 mm
IS.7940-T Plan PLPOLi S40x/0.65 IOS objective. ** WD 0.54 mm
IS.7960-T Plan PLPOLi S60x/0.80 IOS objective. ** WD 0.14 mm
IS.7900-T Plan PLPOLi S100x/1.25 IOS oil immersion objective. ** WD 0.13 mm

** No cover glass correction*
*** With 0.17 mm cover glass correction*
WD = working distance

TRANSMITTED KÖHLER ILLUMINATION SYSTEM

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
SL.5503 3 W NeoLED™ replacement unit

POLARIZATION ATTACHMENT

without reflected illumination

IS.9604 Quartz wedge in slider
IS.9608 Analyzer 0-360° rotatable
IS.9610 Lambda plate first red 530 nm in slider
IS.9612 Lambda/4 retardation plate in slider

POLARIZATION ATTACHMENT

with reflected 50W/12V halogen illumination

IS.9602-R Polarizer
IS.9604-R Quartz wedge in slider
IS.9608-R 360° Rotatable analyzer in slider
IS.9610-R Lambda plate first red 530 nm
IS.9612-R Lambda/4 retardation plate in slider
AE.3679 Halogen spare bulb 12 V 50 W

MATERIALS SCIENCE ATTACHMENT

with reflected NeoLED™ epi-illumination

IS.9230 Reflected NeoLED™ epi-illumination attachment with for materials science with 5x, 10x, 20x and S50x objectives. Supplied with a 0-90° polarizer mounted in a slider, a fixed analyzer in slider, a white, yellow and blue filter, all mounted in a slider. With external 100-240 Vac/ 7.5 Vdc power adapter

IS.9720 Blue filter in slider

IS.9722 Green filter in slider

IS.9724 Yellow filter in slider

IS.9726 White filter in slider

IS.9727 Polarizer 0-90° in slider for materials science attachment (IS.9230)

IS.9728 Analyzer 0-360° rotatable in slider for materials science attachment (IS.9230)

IS.9731 Slider with green and blue filters

IS.9515 Metal plain insert for mechanical stage

IS.9518 Glass plain insert for mechanical stage

IS.9503 Large ceramic stage for iScope. Only with new microscopes

SL.5500 3 W NeoLED™ replacement unit

CAMERA ACCESSORIES

AE.5130 Universal SLR adapter with built-in 2x lens without T2 adapter. For standard 23.2 mm tube

AE.5040 T2 adapter for Canon EOS SLR digital camera

AE.5025 T2 adapter for Nikon D SLR digital camera

MISCELLANEOUS

IS.9501-ADD Stage with ergonomical low-positionned X-Y adjustments of mechanical stage. Right handed. Add-on price, only with new microscopes

IS.9522 Optional 30 x 40 mm X-Y mechanical stage for circular polarization 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 Cleaning liquid, isopropanol alcohol 99% (200 ml)

PB.5275 Cleaning kit: lens cleaning fluid, lint free lens tissue, brush, air blower and cotton swabs

IS.9608-R 360° Rotatable analyzer in slider

IS.9602-R Polarizer

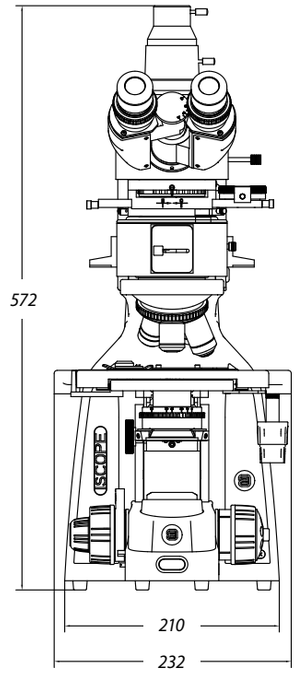
IS.9604-R Quartz wedge in slider

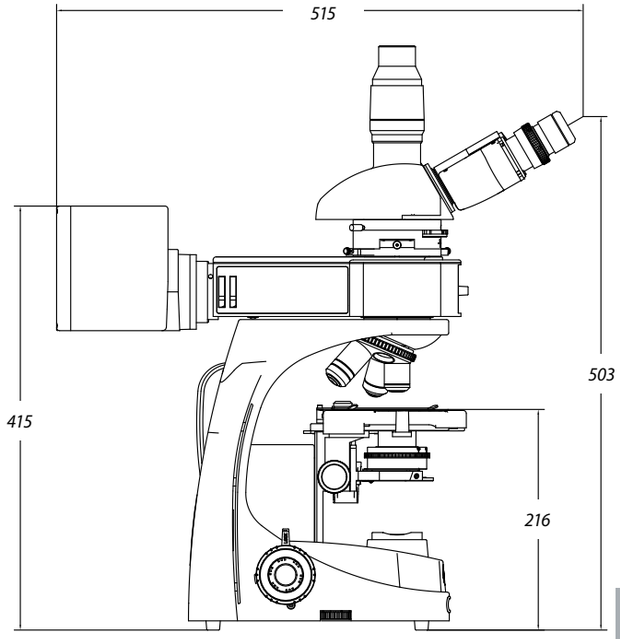
IS.9610-R Lambda plate first red 530 nm

IS.9612-R Lambda/4 retardation plate in slider

IS.9727 Polarizer 0-90° in slider

DIMENSIONS





IS.9503
Ceramic stage

MATERIALS SCIENCE MICROSCOPES

bscope®

NeoLED™ euromex optical technology

BS.1053-PLMi

bScope®

for materials science

The well-equipped microscopes of the bScope® for materials science are especially configured for observation of all kinds of materials such as metals, plastics, wood, glass, etc. These microscopes are extensively used in the materials research and quality assurance laboratories

The design of the bScope® is both ergonomic and evolutive. Wide field WF 10x/22 mm eyepieces and low focusing controls minimize fatigue during long working sessions and therefore provide more comfort for microscopists. The robust and compact size of the bScope® together with the Cable Storage System allow more working space, safer operation and easy storage

product information

TRINOCULAR MODEL BS.1053-PLMi
515 (h) x 195 (w) x 431 mm (d) | 8.5 kg

HIGHLIGHTS

- **Materials science microscopes**
- **Trinocular models**
- **WF 10x/22 mm eyepieces**
- **Reversed ball-bearing quintuple nosepiece with slot for polarization filter**
- **Plan M-IOS objectives**
- **Polarizer and analyzer filters**
- **Rackless integrated X-Y mechanical stage**
- **3 W NeoLED™ adjustable transmitted and reflected NeoLED™ illumination**
- **Integrated carrying grip**
- **Cable Storage System and anti-theft system**
- **10 Years warranty**

SPECIFICATIONS

EYEPIECES

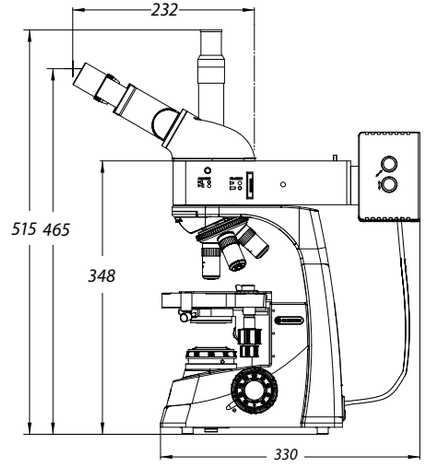
Wide field WF 10x/22 mm eyepieces with 22 mm field of view (Ø 30 mm tube)

HEAD

The bScope® is equipped with a Siedentopf type head, 360° rotatable and equipped with 30° inclined tubes, sporting 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 light path selector (100:0 / 0:100) 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 10)

Trinocular light path selector 100-0/0-100

DIMENSIONS



NOSEPIECE

Revolving and reversed ball-bearing quadruple nosepiece

OBJECTIVES

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 perfect centering of the objectives

Infinity corrected achromatic plan M-IOS 5x/0.12, 10x/0.25, 20x/0.40, 50x/0.70 IOS objectives. Optional plan M-IOS S80x/0.80 and S100x/0.85 IOS objective are also available

The S80x and S100x 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 185 x 140 mm stage with integrated 74 x 48 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

POLARIZATION

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

NEOLED™ REFLECTED ILLUMINATION

Reflected intensity adjustable 3 W NeoLED™ Köhler illumination with external power supply, push-pull type rotatable polarizer and push-pull analyzer, built-in condenser with iris diaphragm and field iris diaphragm. Integrated rotating filter disc with green, blue, yellow and white filters

NEOLED™ TRANSMITTED ILLUMINATION

The 3 W adjustable Köhler NeoLED™ diascopic 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

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

CORDLESS USE

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

CSS – CABLE STORAGE SYSTEM

This 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

Analyzer and rotatable push-pull polarizer

Reflected illumination with rotating color filter disc

Ergonomic carrying grip for easy transportation

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 and user manual

MODEL	Trinocular	WF 10x/22 mm eyepieces	PLMi 5x/10x/20x/50x IOS objectives	Transmitted NeoLED™ Köhler illumination	Relfected NeoLED™ Köhler illumination
BS.1053-PLMi	•	•	•	•	•

Optional: PLMi 100x IOS objective

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 with 10/100 micrometer
BS.6315 WF 15x/12 mm eyepiece, Ø 30 mm tube
BS.6399 Pair of eyecups, Ø 30 mm tube

OBJECTIVES

BS.8105 Plan M-IOS 5x/0.12 infinity corrected objective. WD 26.1 mm
BS.8110 Plan M-IOS 10x/0.25 infinity corrected objective. WD 20.20 mm
BS.8120 Plan M-IOS 20x/0.40 infinity corrected objective. WD 8.80 mm
BS.8150 Plan M-IOS 50x/0.70 infinity corrected objective. WD 3.68 mm
BS.8180 Plan M-IOS 80x/0.80 infinity corrected objective. WD 1.25 mm
BS.8100 Plan M-IOS 100x/0.85 infinity corrected objective. WD 0.40 mm

WD = working distance

POLARIZATION

BS.9602 Analyzer in mount for under nosepiece
BS.9645 Polarizer, for lamphouse
BS.9601-R Polarizer in slider for reflected illumination attachment

MISCELLANEOUS

AE.1370 Set of rechargeable AA batteries, three pieces
BS.9577-L Add-on for left handed mechanical stage (only with new purchased microscope
BS.9515 Metal plain insert for mechanical stage
BS.9518 Glass plain insert for mechanical stage
AE.5226 Glass fuses 3A 250V, 10pcs
AE.9919 Nylon bag for bScope. 58(h) x 32(w) x 24(d)

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

WD = working distance

Delphi-X observer

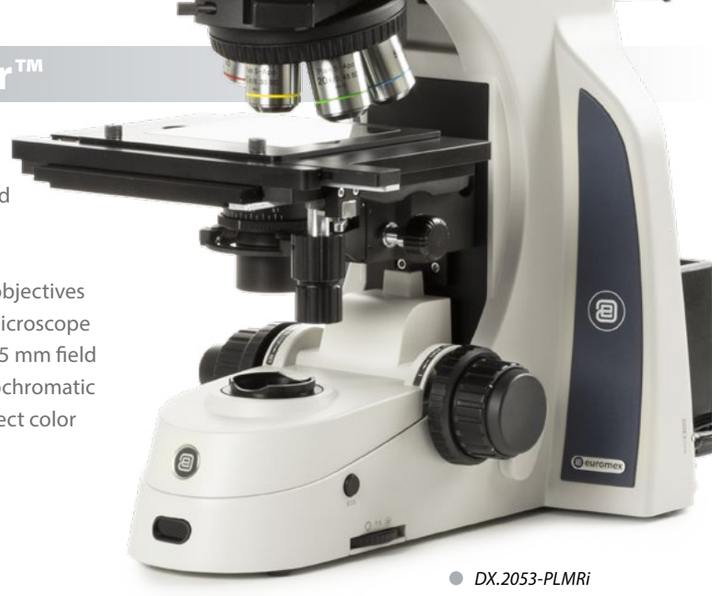
NeoLED™ euromex optical technology

Delphi-X Observer™

for materials science

State-of-the-art microscopes for advanced materials science applications

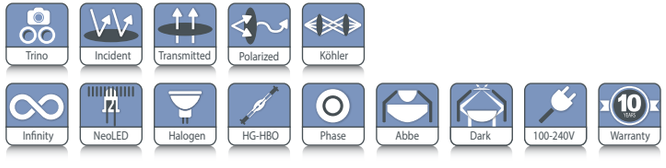
The ergonomic design and outstanding objectives make the Delphi-X Observer™ the ideal microscope for advanced materials application. The 25 mm field of view of the eyepieces and the plan apochromatic objectives enable observations with perfect color rendering at high resolving power



DX.2053-PLMRi

DX metallurgical

DX polarization



DX.2053-PLMRi
510 (h) x 261 (w) x 367 mm (d) | 21.1 kg

HIGHLIGHTS

- **Brightfield and darkfield EPi illumination**
- **Polarization**
- **Nomarski DIC (optional)**
- **Enhanced infinity corrected EIS optical system**
- **High contrast objectives with minimal aberrations**
- **Full apo, semi-apo and plan EIS objectives**
- **Super wide field SWF 10x/25mm eyepieces**
- **100 W halogen illumination**
- **Sextuple reversed nosepiece with slot for DIC**
- **Quintuple nosepiece for polarization models**

Revolver with slot for Nomarski DIC slider

SPECIFICATIONS

EYEPIECES

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

STANDARD HEAD

Siedentopf trinocular 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 adjustment 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 with a standard 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

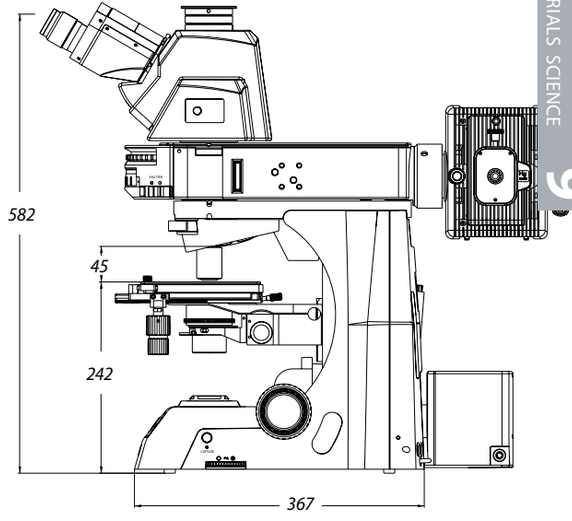
NOSEPIECE

Revolving sextuple reversed nosepiece on ball-bearings except the models for polarization applications which are equipped with a quintuple nosepiece

ENHANCED INFINITY SYSTEM (EIS)

The enhanced infinity system (EIS) of the Delphi-X Observer™ consists of super wide field SFWF 10x25 mm eyepieces, high numerical aperture 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 significantly improves 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

DIMENSIONS



Plan semi-apo PLMi (BF/DF)	DX.81xx		5x/0.15, WD 20 mm	10x/0.30, WD 11 mm	20x/0.45, WD 3.1 mm		
Plan apo PLMi (BF/DF)	DX.81xx					50x/0.80, WD 1 mm	100x/0.90, WD 1 mm [1]
Plan semi-apo PLPOLRi [2] strain-free	DX.79xx		5x/0.15, WD 20 mm	10x/0.30, WD 11 mm	20x/0.45, WD 3.0 mm	50x/0.80, WD 1 mm	100x/0.90, WD 1 mm [1]
Plan PLPOLi (BF/POL) [3] strain-free	DX.79xx	2x/0.06, WD 7.5 mm	4x/0.10, WD 20 mm	10x/0.25, WD 10.2 mm	20x/0.45, WD 12 mm	40x/0.65, WD 0.7 mm	60x/0.80, WD 0.3 mm [1]

[1] Optional
[2] For models for polarization applications with incident illumination. No cover glass correction
[3] For models for polarization applications without incident illumination. With 0.17 mm cover glass correction
DX.81xx objectives are 45 mm parfocal and have a M26 x 0.7 mounting thread
DX.79xx objectives are 60 mm parfocal and have a M25 x 0.7 mounting thread
All optics are anti-fungus treated and anti-reflection coated for maximum light throughput
WD = working distance

The nosepiece lowering attachment lowers the revolver with 40 mm allowing the stage to be used in a 40 mm lower position as well (DX.9887)

The eye-level riser can raise the eye-point height by 25.4 mm (DX.9885)

STAGE

- Large 215 x 170 mm stage with 105 x 105 mm integrated right-handed mechanical stage, with glass and metal insert. Stage height can be lowered for large samples (1 to 28 mm standard sample size, lowered to 55 mm sample size)
- Diameter 190 mm circular stage for models for polarization applications. 360° Rotatable with Vernier and two object clamps and an optional 30 x 30 mm X-Y mechanical stage

CONDENSER FOR POLARIZATION

Height adjustable Abbe N.A. 1.25 condenser with iris diaphragm and 306° rotatable polarizer

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

LONG WORKING DISTANCE CONDENSER

In height adjustable long working distance N.A. 0.65 condenser (10.2 mm) with numerical aperture identification marks allows easy setting

ILLUMINATION

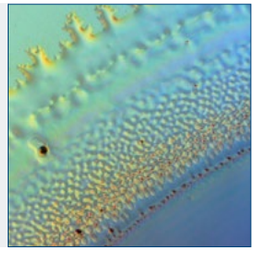
The Delphi-X Observer™ materials science microscope is equipped with epi and diascopic intensity adjustable 100 W halogen illumination with internal 100-240 Vac power supply. The diascopic halogen illumination comes with two push-in/push-out neutral density filters for smooth attenuation of the light intensity for all kinds of samples

The microscope comes with an analyzer and a polarizer which can easily be inserted into the free slots of the Epi-Illuminator for high quality polarized images. Furthermore a rotating cassette is implemented for quick changing between darkfield, brightfield and dimmed brightfield

NOMARSKI DIC (OPTIONAL)

With the redesign of the DIC-module visualization of height differences which normally cannot be displayed using brightfield techniques has greatly improved. These relief-like images are ideal for surface inspections of wafers, LCD screens, etc

A 3-dimensional or relief-like image produced with the DIC-module



ICARE SENSOR

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

CARRYING GRIP

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

PACKAGE CONTENT

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

MODELS	Fixed 30 degree Siedentopf head	Ergonomic tilting head	Plan EIS 2x/0.06 objective*	Plan EIS 4x/0.10, 10x/0.25 and 40x/0.65 objectives*	Plan semi-apo EIS 5x/0.15, 10x/0.30 and 20x/0.45 objectives*	Plan apo EIS 50x/0.80 objective*	Plan apo EIS 100x/0.90 objective*	100 W 12 V transmitted halogen Köhler illumination	100 W 12 V reflected halogen Köhler illumination	(DIC)
DX.2053-PLMRi	•		o		•	•	o	•	•	o
DX.2058-PLMRi		•	o		•	•	o	•	•	o
DX.2053-PLMi	•		o		•	•	o		•	o
DX.2058-PLMi		•	o		•	•	o		•	o
DX.2053-PLPOLRi	•		o		•	•	o	•	•	o
DX.2058-PLPOLRi		•	o		•	•	o	•	•	o
DX.2053-PLPOLi	•		o	•		o	o	•		o
DX.2058-PLPOLi		•	o	•		o	o	•		o

** Infinity corrected*
o = optional

9 INDUSTRY MATERIALS SCIENCE

DX.2053-PLPOLRi

ACCESSORIES AND SPARE PARTS

EYEPIECES

DX.6010 Super wide field SWF 10x/25 mm eyepiece for Ø 30 mm tube

DX.6010-CM Super wide field SWF 10x/25 mm eyepiece with 10/100 micrometer and crosshairs for Ø 30 mm tube

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.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 eyepiece

DX.6099-N Eyeshade for eyepieces

INFINITY CORRECTED OBJECTIVES

(all DX.81xx below have a M26 x 0.7 thread, 45 mm parfocal)

DX.8102 Infinity EIS 45 mm plan PLMi 2x/0.06 objective. WD 7.5 mm *

DX.8105 Infinity EIS 45 mm plan semi-apochromatic SAMi 5x/0.15 objective. WD 20 mm *

DX.8110 Infinity EIS 45 mm plan semi-apochromatic SAMi 10x/0.30 objective. WD 11 mm *

DX.8120 Infinity EIS 45 mm plan semi-apochromatic SAMi 20x/0.45 objective. WD 3.0 mm *

DX.8150 Infinity EIS 45 mm plan apochromatic PLAMi 50x/0.80 objective. WD 1 mm *

DX.8100 Infinity EIS 45 mm plan apochromatic PLAMi 100x/0.90 objective. WD 1 mm

** No cover glass correction*

(all DX.79xx below have a M25 x 0.7 thread, 60 mm parfocal)

DX.7905-R Infinity EIS 60 mm plan Semi-apochromatic PLPOLi 5x/0.15 strain-free objective. WD 20 mm. No cover glass correction

DX.7910-R Infinity EIS 60 mm plan Semi-apochromatic PLPOLi 10x/0.30 strain-free objective. WD 11 mm. No cover glass correction

DX.7920-R Infinity EIS 60 mm plan Semi-apochromatic PLPOLi 20x/0.45 strain-free objective. WD 3.0 mm. No cover glass correction

DX.7950-R Infinity EIS 60 mm plan apochromatic PLPOLi 50x/0.80 strain-free objective. WD 1 mm. No cover glass correction

DX.7904-T Infinity EIS 60 mm plan PLPOLi 4x/0.10 strain-free objective. WD 20 mm. With 0.17 mm cover glass correction

DX.7910-T Infinity EIS 60 mm plan PLPOLi 10x/0.25 strain-free objective. WD 10.2 mm. With 0.17 mm cover glass correction

DX.7920-T Infinity EIS 60 mm plan PLPOLi 20x/0.40 strain-free objective. WD 12 mm. With 0.17 mm cover glass correction

DX.7940-T Infinity EIS 60 mm plan PLPOLi 40x/0.65 strain-free objective. WD 0.7 mm. With 0.17 mm cover glass correction

DX.7960-T Infinity EIS 60 mm plan PLPOLi 60x/0.80 strain-free objective. WD 0.3 mm. With 0.17 mm cover glass correction

DX.7900-T Infinity EIS 60 mm plan PLPOLi S100x/1.25 strain-free oil-immersion objective. WD 0.2 mm. With 0.17 mm cover glass correction

WD = working distance

POLARIZATION ATTACHMENT

with transmitted illumination

DX.9604 Slider with quartz wedge plate

DX.9608 Slider with 0-360° rotatable analyzer, 0.1° divisions

DX.9610 Slider with Lambda plate first red

DX.9612 Slider with Lambda/4 plate

DX.9602 Slider with rotatable polarizer to be inserted in condenser of transmitted illumination

POLARIZATION ATTACHMENT

with incident illumination

DX.9602-R Slider with rotatable polarizer to be inserted in reflected illumination attachment

DX.9604-R Slider with quartz wedge plate for reflected illumination attachment

DX.9608-R Slider with 0-360° rotatable analyzer, 0.1° divisions

DX.9610-R Slider with 1 lambda first plate red for reflected illumination attachment

MATERIALS SCIENCE STAGES

DX.9502-R Plain mechanical stage right handed

DX.9502-L Plain mechanical stage left handed

DX.9501-R Stage with Gorilla glass, hole and specimen holder. Right handed

DX.9501-L Stage with Gorilla glass, hole and specimen holder. Left handed

DX.9504-R Stage with Sapphire glass, hole and specimen holder. Right handed

DX.9504-L Stage with Sapphire glass, hole and specimen holder. Left handed

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

DX.9800 Side single photoport attachment

MISCELLANEOUS

DX.9696 DIC attachment for materials sciences Delphi-X Observer™ models

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.9961 100 Watt 12 V halogen bulb for Delphi-X Observer™ (revision-2 models)

AE.5216 Fuses 5A 250 V, per 10 pcs. models with 100 W halogen

DX.9522 Optional 30 x 30 mm X-Y mechanical stage for polarization microscopes

DISPOSABLES

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

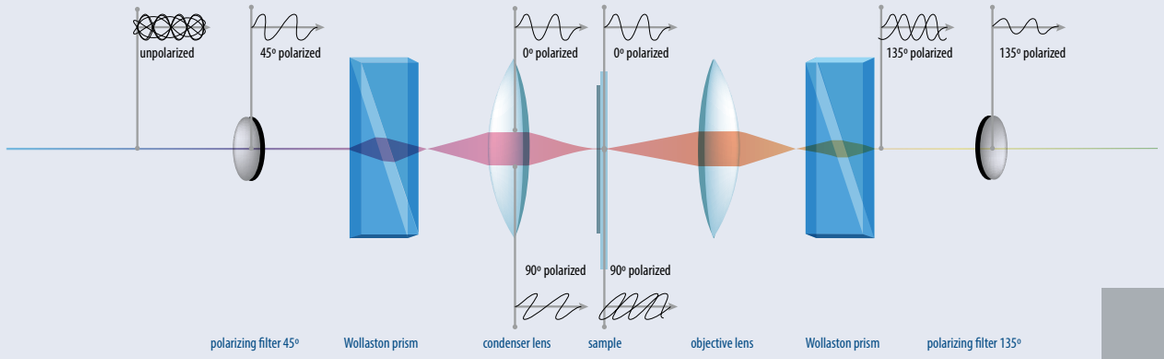
PB.5276 Microscope maintenance and servicing kit, 16pcs: cleaning brush, 6 pcs screwdriver set, air blower, 3 pcs Allen key, 1.5, 2, 2.5 mm, lens cleaning fluid 20 ml, cleaning cloth 140 x 140 mm, 100 pcs lens tissue sheets, tube of maintenance grease, 10 ml bottle of oil, packed in a nice toolbox

about

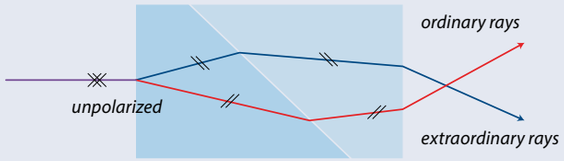
differential interference contrast

Differential interference contrast (DIC) technique helps in microscopy to enhance the contrast of samples

The technique is based on interferometry to obtain information about the small difference in optical path length between two orthogonally polarized light rays coming from the sample
This results in an image of the sample appearing as a three-dimensional physical relief. Polarized light is split into two orthogonally polarized coherent light rays by means of a Nomarski-modified Wollaston prism. Subsequently the sample spatially shifts the light rays slightly



By passing a second Nomarski-modified Wollaston prism, the spatially shifted polarized light is recombined. These recombined light rays pass through a second polarization filter that blocks useless direct transmitted light. The interference of the two rays is sensitive to the optical path difference and by introducing an adjustable offset, the contrast is proportional to the path length so that the heights and depths of the sample appear as three-dimensional objects. Discontinuities on the surface, edges, lines and height differences on the sample create optical path differences that are turned into amplitude / intensity differences in the image, enhancing details in a topographically incorrect way but enables imaging of otherwise invisible details



The Nomarski prism consists of two birefringent crystal wedges cemented together at the hypotenus. One wedge is a Wollaston wedge, the second wedge of the prism is modified by cutting the crystal so that the optical axis is oriented obliquely with respect to the flat surface of the prism

MATERIALS SCIENCE MICROSCOPES

Oxion

NeoLED™ euromex optical technology

Oxion

for materials science

Oxion microscopes for materials science are specifically designed for the observation of many types of materials in university and in industrial research laboratories and by other professionals

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

● *OX.3245*

product information

Trino | Incident | Transmitted | Polarized | Infinity | NeoLED | Abbe | 100-240V | 10 YEARS Warranty

OX.3245
430 (h) x 180 (w) x 430 mm (d) | 9.9 kg

● *OX.3245*

HIGHLIGHTS

- **Trinocular model**
- **HWF 10x/22 mm eyepieces**
- **Reversed quintuple nosepiece**
- **Plan M-IOS objectives**
- **Transmitted 3 W NeoLED™ illumination**
- **Reflected 3 W NeoLED™ illumination**
- **Polarization and analyzer filters**
- **10 Years warranty**

SPECIFICATIONS

EYEPIECES

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

HEAD

Trinocular Siedentopf heads with 30° inclined tubes. Interpupillary distance from 48 to 75 mm. Diopter ± 5 diopter adjustment on both eyepieces. A unique rotating system allows ergonomic positioning of both tubes in an upper (431 mm) and in a lower position (397 mm)

Reflected illumination unit with oblique lighting feature

NOSEPIECE

Reversed nosepiece for a maximum of five objectives on ball bearings

OBJECTIVES

(IOS-infinity corrected system)
Standard configurations equipped with infinity corrected long working distance LWD plan M-IOS 5x/0.14, 10x/0.25, 20x/0.40 and plan semi apochromatic LWD 50x/0.55 and 100x/0.80 objectives
All optics have an anti-reflection coating for maximum light throughput and are anti-fungus treated

FOCUSING

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

180 x 145 mm stage with integrated mechanical 78 x 45 mm X-Y stage. Is supplied with plain metal and plain glass inserts

A ceramic stage is also available on request

CONDENSER FOR TRANSMITTED ILLUMINATION

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

TRANSMITTED ILLUMINATION

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

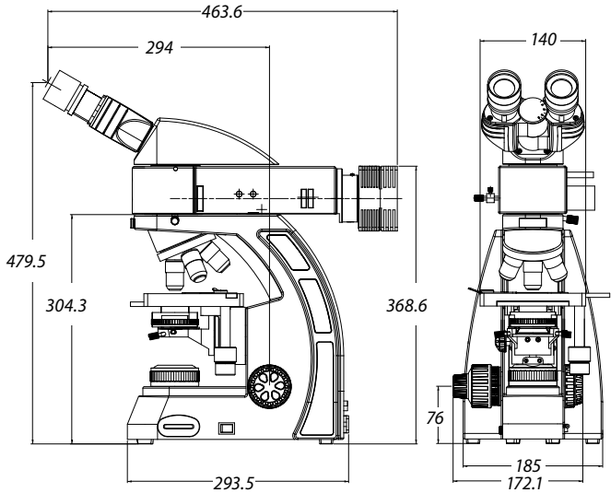
REFLECTED EPI-ILLUMINATION

Intensity adjustable 3 W NeoLED™ Köhler illumination with external 110-240 Vac / 5 Vdc power supply. Push-pull type 90° rotatable polarizer and fixed analyzer. Built-in condenser with field and aperture iris diaphragm. Oblique lighting feature. Supplied with blue and green filter

PACKAGE CONTENT

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

DIMENSIONS



● *OX.3240*

Detail of reflected illumination

MODELS	Trinocular	M-IOS 5x/10x/20x/50x objectives	M-IOS 100x objective	Transmitted illumination 3 W NeoLED™	Reflected illumination 3 W NeoLED™
OX.3240	•	•	o	•	•

o = optional

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.3172 Plan achromatic M-IOS PL 5x/0.15 objective.* WD 10.8 mm
AE.3173 Plan achromatic M-IOS PL 10x/0.30 objective.* WD 12.2 mm
AE.3175 Plan achromatic M-IOS PL 20x/0.45 objective.* WD 4 mm
AE.3177 Plan semi apochromatic M-IOS 50x/0.55 objective.* WD 7.9 mm
AE.3179 Plan semi apochromatic M-IOS 100x/0.80 objective.* WD 2.1 mm

** No cover glass correction*
WD = working distance

POLARIZATION ATTACHMENTS

AE.3190 Polarizer/analyzer set for transmitted illumination
AE.3192 Polarizer slider for nosepiece
AE.3194 Polarizer for lamphouse
AE.3193 Analyzer for reflected illumination unit
AE.3195 Polarizer, 360° rotatable (for reflected illumination unit)

FILTERS

AE.3196 Frosted filter 45 mm, for lamphouse
AE.3198 Blue filter 45 mm, for lamphouse
AE.3200 Yellow filter 45 mm, for lamphouse
AE.3202 Green filter 45 mm, for lamphouse
AE.3205 Blue interference 480 nm filter (for reflected illumination unit)
AE.3206 Green interference 520-570 nm filter (for reflected illumination unit)
AE.3208 White color balance interference filter (for reflected illumination unit)

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 or AE.5120-2
AE.5025 T2 adapter for Nikon D digital SLR cameras
AE.5040 T2 adapter for Canon EOS digital SLR cameras
OX.9810 C-mount with 1.0x objective
OX.9833 C-mount with 0.33x objective for 1/3" sensors cameras
OX.9850 C-mount with 0.5x objective for 1/2" sensors cameras

MISCELLANEOUS

OX.9515 Metal plain insert for mechanical stage
OX.9518 Glass plain insert for mechanical stage
AE.3185 Slider with darkfield stop for transmitted illumination (only for objectives 10x, 20x and S40x)
AE.3199 Glass fuses 3.15 A 250 V, 10 pieces

DISPOSABLES

PB.5245 Lens cleaning paper, 100 sheets
PB.5274 Cleaning liquid, isopropanol alcohol 99% (200ml)
PB.5275 Cleaning kit: lens cleaning fluid, lint free lens tissue, brush, air blower and cotton swabs

● *Plain stage*

Delphi-X inverso

Delphi-X Inverso™
for materials science

Delphi-X Inverso™ for materials science is an inverted microscope for the professional with demanding applications for materials sciences samples

● *DI.2053-PLMI*

DI metallurgical

Trino | Transmitted | Polarized | Köhler | Infinity | Köhler | DIC | Dark | 100-240V | 10 YEARS Warranty

DI.2053-PLMI
414.5 (h) x 385 (w) x 627.5 mm (d) | 29 kg

HIGHLIGHTS

- **Materials science applications**
- **Observation of materials science samples**
- **Brightfield, dark field, polarization**
- **DIC (differential interference contrast)**
- **Long working distance IOS plan (semi-)apochromatic objectives**
- **Revolving sextuple nosepiece**
- **100 W halogen illumination**

● *Bertrand lens and trino/eyepieces selector*

SPECIFICATIONS

EYEPIECES
Pair of HWF plan 10x/22 mm

HEAD
Trinocular 45° inclined tubes. Interpupillary distance of 47 to 78 mm. Trinocular head with 100-0, 50/50 and 0/100 positions. Built-in Bertrand lens

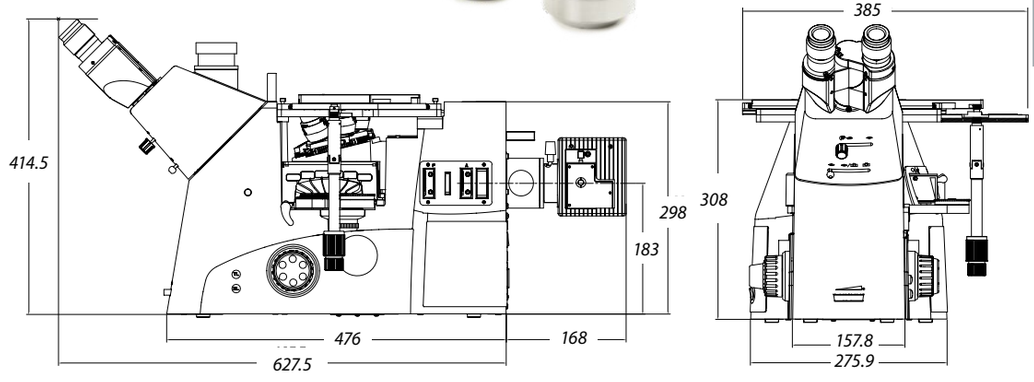
NOSEPIECE
Revolving sextuple nosepiece on ball-bearings.
With DIC slot

OBJECTIVES – 45 MM PARFOCAL
High numerical, infinity (semi-)apochromatic bright-/darkfield objectives. Long working distance, IOS, no cover glass correction, M26 mount

- Plan Semi-Apochromatic (SAMi): 5x/0.15 WD 20 mm, 10x/0.30
  WD 11 mm, 20x/0.45 WD 3.1 mm
- Plan Apochromatic (Plan Apo (PLAMi): 50x/0.80 WD 1 mm and optional 100x/0.90 WD 1 mm

WD = working distance
All optics are anti-fungus treated and anti-reflection coated for maximum light throughput

DIMENSIONS



STAGE

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

Supplied with:

- Metal insert with hole ø 20 mm
- Metal insert with hole ø 28 mm
- Metal insert with drop-shaped hole

Maximum weight for sample: 30 kg

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 or 50x to 30x to 75x magnification can be done without the need to change objectives

MULTIFUNCTIONAL WHEEL

The Delphi-X Inverso has a 6-position multifunctional wheel, supplied with cubes for two brightfield, one darkfield and one polarization filter. Slider with prisms for the 5x/20x and 50x/100x magnifications and slider with analyzer. See photo 1

ADDITIONAL SLIDER SLOTS

Besides a field diaphragm and condenser aperture, two slots are available. A slider with two neutral density filters is also supplied. See photo 2

FOCUS ADJUSTMENT

Low positioned coaxial with 10 mm coarse and fine adjustments focusing knobs, 1 µm precision and with friction adjustment

CAMERA PORTS

Beside the standard photo port of the head, there are two other photo parts at both both left and right side of the microscope. See photo 3

ILLUMINATION

Reflected 100 W halogen Intensity adjustable with internal 100-240 V power supply. Fuse holder 1 A / 250 V

1

2

3

MODEL	Trino	LWD Plan Semi-Apo 5/10/20x	LWD Plan Apo 50x	LWD Plan Apo 100x	100 W Halogen illumination	DIC
DI.2053-PLMI	•	•	•		•	o

o = optional

ACCESSOIRES

EYEPIECES

Ø 30 mm

DI.6010 Super wide field SWF 10x/25 mm f ocusable eyepiece for Delphi-X Inverso

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.6210 Super wide field SWF 10x/22 mm focusable eyepiece for Delphi-X Inverso

DI.6012 Wide field WF 12.5x/17.5 mm eyepiece for Ø 30 mm tube for Delphi-X Inverso

DI.6015 Wide field WF 15x/16 mm eyepiece for Ø 30 mm tube for Delphi-X Inverso

DI.6020 Wide field WF 20x/12 mm eyepiece for Ø 30 mm tube for Delphi-X Inverso

DI.6099-L Eyeshade for eyepieces

OBJECTIVES 45 MM PARFOCAL

M26 mounting thread, no cover glass correction

DI.8105 Infinity Plan Semi-Apochromatic PLMi 5x/0.15 IOS BD objective, working distance 20 mm

DI.8110 Infinity Plan Semi-Apochromatic PLMi 10x/0.30 IOS BD objective, working distance 11 mm

DI.8120 Infinity Plan Semi-Apochromatic PLMi 20x/0.40 IOS BD objective, working distance 3.1 mm

DI.8150 Infinity Plan Apochromatic PLMi 50x/0.80 IOS BD objective, working distance 1 mm

DI.8100 Infinity Plan Apochromatic PLMi 100x/0.90 IOS BD objective, working distance 1 mm

BD = brightfield/darkfield

DIFFERENTIAL INTERFERENCE CONTRAST (DIC)

DI.9691-52 DIC prism for nosepiece of materials science Delphi Inverso model. To be used with Plan Semi-Apochromatic 5x/20x objectives

DI.9691-51 DIC prism for nosepiece of materials science Delphi Inverso models. To be used with Plan Apochromatic 50x/100x objectives

DI.9698 DIC analyzer for nosepiece for life science Delphi-X Observer DIC

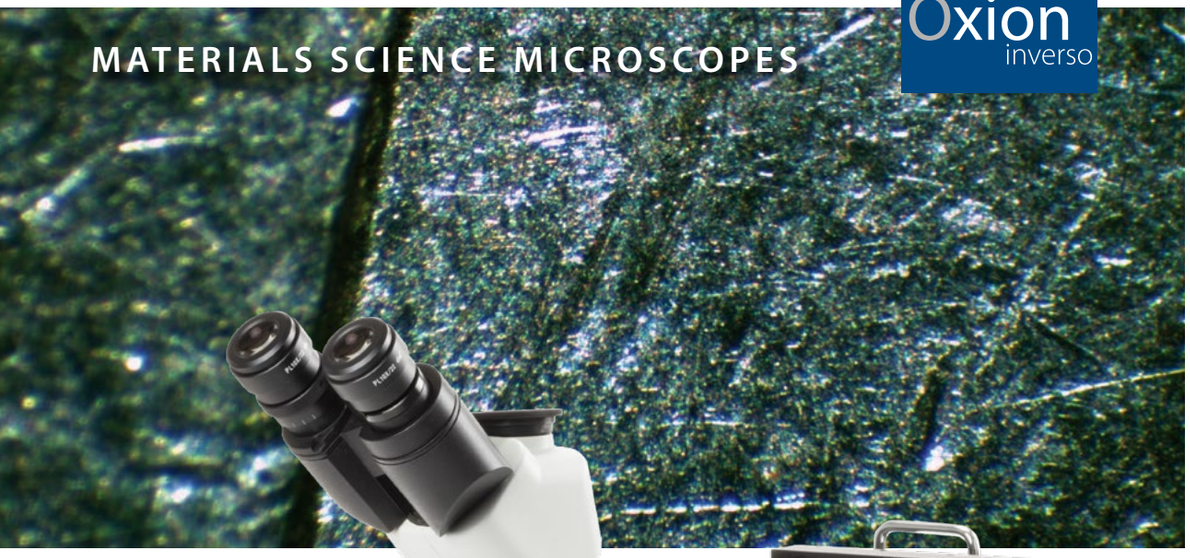
MISCELLANEOUS

DI.9810 C-mount with 1x magnification for 1 or 2/3 inch C-mount camera

DI.9840 C-mount with 0,4x magnification for 1/3 inch C-mount camera

DI.9850 C-mount with 0,5x magnification for 1/2 inch C-mount camera

Oxion inverso



Oxion Inverso

for materials science

The Oxion Inverso inverted microscopes for materials science are intensively used for observation of large pieces of material, made for example of metal, wood or plastics

The Oxion Inverso is available with a powerful 50 W halogen brightfield contrast illumination and a large mechanical stage. The polarization and color filters make this instrument suitable for a wide variety of applications

OX.2153-PLM

product information

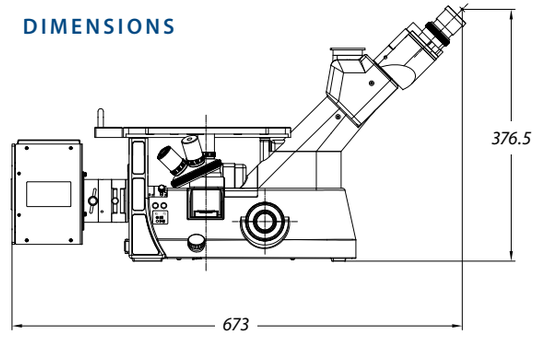
Trino | Incident | Polarized | Infinity | Halogen | Abbe | 100-240V | 10 YEARS Warranty

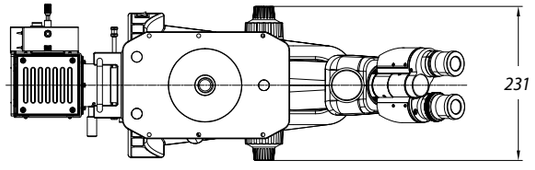
OX.2153-PLM / OX.2653-PLM
376.5 (h) x 231 (w) x 673 mm (d) | 10.8 kg

HIGHLIGHTS

- **Materials science applications**
- **Observation of all types of materials**
- **Brightfield with polarization options**
- **Long working IOS plan achromatic objectives**
- **Long working IOS plan semi apochromatic objectives**
- **Revolving quintuple nosepiece**
- **50 W halogen Köhler illumination**
- **10 Years warranty**

DIMENSIONS





SPECIFICATIONS

EYEPIECES
Pair of HWF plan 10x/22 mm eyepieces

NOSEPIECE
Revolving quintuple nosepiece on ball-bearings

HEAD
- Trinocular 45° inclined tubes
- One diopter adjustment on left eyepiece. Interpupillary distance of 54 to 75 mm
- Trinocular head with light path selector 100-0/0-100

OBJECTIVES
Infinity color corrected long working distance 5x/0.15, 10x/0.14, 20x/0.45 plan achromatic IOS objectives and a plan semi apochromatic S50x/0.55 IOS objective. Model OX.2153-PLM also has a plan semi apochromatic S100x/0.80 IOS objective. No cover glass correction
All optics are anti-fungus treated and anti-reflection coated for maximum light throughout

STAGE
Stage 250 x 230 mm equipped with a coaxial mechanical 120 x 78 mm X-Y stage, delivered with:
- metallic insert with Ø 12 mm hole and Ø 25 mm hole
- metallic insert with hole for mechanical stage

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

ILLUMINATION
Reflected Köhler 50 W halogen Intensity adjustable with internal 100-240 V power supply. Fuse holder 3.15 A / 250 V

POLARIZATION
Standard polarization filter and 360° rotating analyzer

FILTERS - Ø 30 MM
Blue and green filter mounted in slider, that can be inserted at the back of the illumination attachment. Polarization filter in slider, to be inserted under nosepiece

PACKAGE CONTENT
Supplied with power cord, dust cover, blue and green filters and user manual. Microscope is supplied in an aluminum transport case

MODELS	LWD plan 5x/10x/20x objectives	LWD plan apochromatic 50x objective	LWD plan apochromatic 100x objective	Mechanical stage
OX.2653-PLM	•	•		•
OX.2153-PLM	•	•	•	•

LWD = long working distance

ACCESSORIES AND SPARE PARTS

EYEPIECES

OX.6010 HWF 10x/22 mm eyepiece
OX.6015 HWF 15x/16 mm eyepiece
OX.6110 HWF 10x/22 mm eyepiece with micrometer reticule
OX.6099 Pair of eyecups

OBJECTIVES

OX.8205 Plan achromatic PLM 5x/0.15 IOS objective*. WD 10.8 mm
OX.8210 Plan achromatic PLM 10x/0.30 IOS objective*. WD 12.2 mm
OX.8220 Plan achromatic PLM 20x/0.45 IOS objective*. WD 4 mm
OX.8250 Plan semi apochromatic PLM S50x/0.55 IOS objective*. WD 7.9 mm
OX.8200 Plan semi apochromatic PLM S100x/0.80 IOS objective*. WD 2.1 mm

** No cover glass correction*
WD = working distance

STAGE AND ACCESSORIES

OX.9500 Mechanical coaxial X-Y 120 x 78 mm stage
OX.9506 Transparent glass insert with hole
OX.9508 Metal insert with Ø 12 mm hole
OX.9509 Metal insert with Ø 25 mm hole
OX.9535 Metal insert for Petri dish Ø 35 mm
OX.9599 Universal culture-dish holder for translation stage

Large stage with X-Y mechanical stage

FILTERS - Ø 30 MM

OX.9700 Blue filter in slider, for illumination attachment
OX.9702 Green filter in slider, for illumination attachment
OX.9710 Polarization filter in slider, fits under nosepiece

C-MOUNT ADAPTERS

OX.9810 CS/C mount with 1.0x objective
OX.9833 CS/C mount with 0.33x objective for 1/3" sensor cameras
OX.9850 CS/C mount with 0.5x objective for 1/2" sensor cameras

MISCELLANEOUS

AE.3199 Glass fuses 3.15 A 250 V, 10 pcs
SL.3679 Halogen spare bulb 12 V 50 W
AE.5120-2 Standard 23.2 mm diameter tube for Oxion Inverso photo port revision-2
AE.5130 Universal SLR camera adapter with 2x projection lens for 23.2 mm tube. 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
AE.3199 Glass fuses 3.15 A 250 V packed, per 10 pieces

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

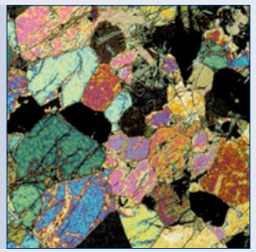
TECHNICAL FACTS

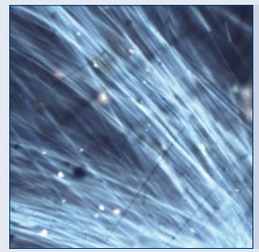
about
petrological microscopy

Euromex microscopes for polarization are intensively used in petrology and optical mineralogy to identify rocks, minerals in thin sections and asbestos fibers

Conventional brightfield microscopes are turned into a petrological microscope by:
replacing the conventional rectangular stage with a circular 360° rotating stage
- adding strain free objectives for correct color rendering
- adding a removable polarization filter into the light path
- adding a second removable 360° rotating polarization filter - called analyzer - into the light path
- adding a Bertrand lens* for observation of conoscopic interference fringes
- adding compensation wave plates
- adding reflected illumination

Mineral petrology





Crocodolite asbestos fiber

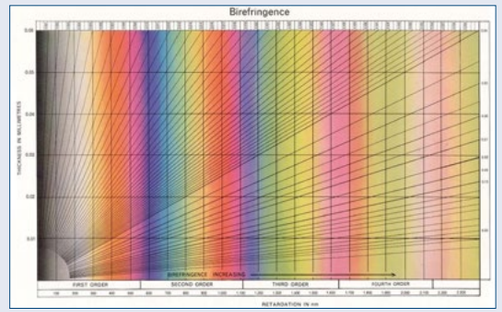
The most common compensators are:

1 λ Wave plate is often referred to as a first-order red plate or as a sensitive tint because it produces the interference color having a tint similar to the first-order red seen in the Michel-Levy chart. Introduce an optical path difference of circa 540-570 nm

- 1/4 λ Wave plate is often referred to as a mica plate and is usually made from quartz or muscovite crystals sandwiched between two glass windows. Introduce an optical path difference of circa 140 nm

Quartz wedge is the simplest compensator, which is utilized to vary the optical path length difference to match that of the specimen

- Other attachments such as DSO (Dispersion Staining Objectives) and phase contrast equipment can be added for specific identification of asbestos fibers



Michel-Levy chart

** A so-called Bertrand lens - positioned between the analyzer and the eyepieces allows the microscopist to observe interference fringes. These images appear in the objective rear focal plane when an optically anisotropic specimen is viewed between crossed polarizers*

digital solutions

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

Euromex digital products incorporate all the latest available technology in this field such as WiFi, HDMI and sCMOS sensors. Our digital solutions package includes the powerful ImageFocus software for image analysis

industry
digital solutions

product information

MZ series

MACROZOOMS

MZ.4500

macrozoom

The high-end MacroZoom is built around one 0.7 to 4.5 times optical zoom objective and must be used in combination with C-mount types of cameras with a HD screens or computer screens. With a working distance of 105 mm it is highly suitable for repairs, tooling engineers and visual inspections

A standard heavy metal base makes the whole system very stable for adding all kinds of illumination systems and camera systems

MZ.4500

product information

Warranty

MZ.4500
313 (h) 320 (w) 285 mm (d) | 3.06 kg

HIGHLIGHTS

- **Stand-alone**
- **Zoom semi-apochromatic objective**
- **Zoom up to 0.7x to 4.5x**
- **C-mount with 0.4x objective**
- **105 mm working distance**
- **Without illumination**
- **Metal stand**
- **3 Years warranty**

SPECIFICATIONS

CENTRAL ZOOM OBJECTIVE

The MacroZoom MZ.4500 features a single optical zoom objective with a 0.7x to 4.5x zoom magnification. Zoom adjustments engravings on 1, 1.5, 2, 3 and 4.5x. The working distance is 105 mm

STAND

The MacroZoom is mounted on a 230 mm height pillar (Ø 32 mm) and holder (Ø 39/50 mm) that sits on a metal 320 x 260 x 16/25 mm metal stand

CAMERA SYSTEMS

Any of our digital C-mount cameras (in this chapter) can be used together with the MacroZoom

PACKAGING

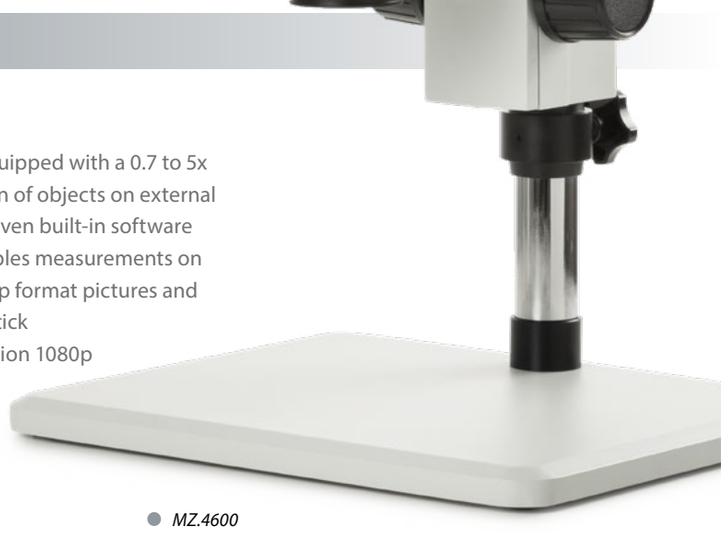
Supplied with dust cover and packed in polystyrene

The MZ.4500 in combination with the VC.3036-HDS

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 have a built-in High Definition 1080p 2MP camera which can deliver up to 60 images per seconds and needs to be connected to an external stand-alone HD screen



MZ.4600

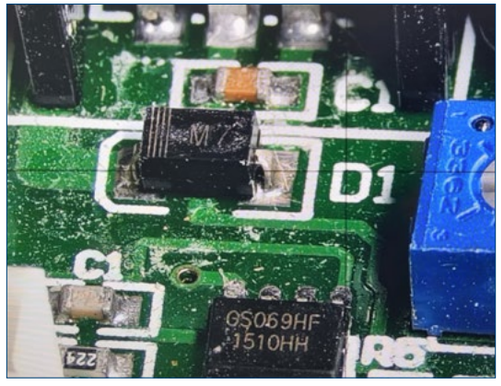
product information

Zoom | Digital | 100-240V | 2 YEARS Warranty

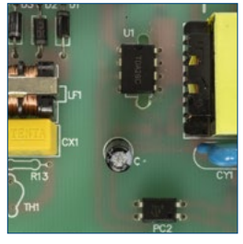
MZ.4600
323 (h) 320 (w) 260 mm (d) | 4.4 kg

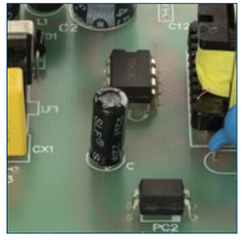
HIGHLIGHTS

- **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**



3-D attachment MZ.4515
Below: view from above and from a 45° angle





SPECIFICATIONS*

MACROZOOM OBJECTIVE

Single 0.7 to 5x zoom objective. Working distance 105 mm
An optional 3D attachment enables a 45° angle observation

STAND

- Metal 320 x 260 mm pillar stand (Ø 32 mm), without illumination
- Also suitable for NexiusZoom stands

ILLUMINATION

An external (not supplied) illumination system should be used, such as LE.1973, LE.1974, LE.5212 or LE.5207

BUILT- IN CAMERA

Built-in HD 1080p high definition 2 MP 1/2.8" CMOS high speed camera, 1920 x 1080 pixels and 60 images per second

BUILT- IN SOFTWARE

The built-in on-screen software (only English language) is mouse driven and features camera and measurement functions

** See for more specifications chapter 7*

MZ.4600-NZ

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 an USB memory stick

- *MZ.4700*

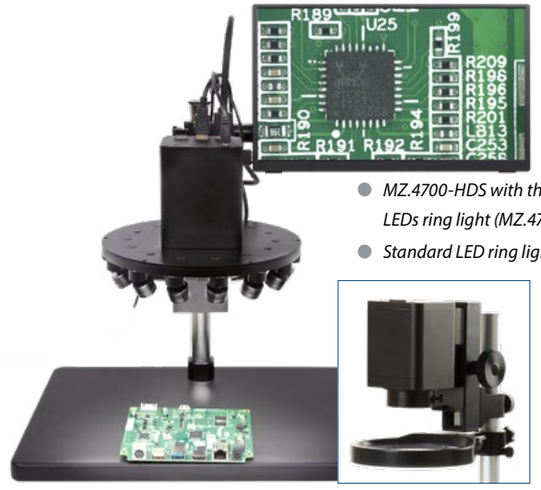
product information

Incident | LED | Zoom | LCD | WiFi | Digital | 100-240V | 2 YEARS Warranty

MZ.4700
350 (h) x 375 (w) x 250 mm (d) | 5.1 kg

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**



- *MZ.4700-HDS with the directional LEDs ring light (MZ.4735)*
- *Standard LED ring light (MZ.4730)*

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

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 NexiusZoom stands

PACKAGE CONTENT

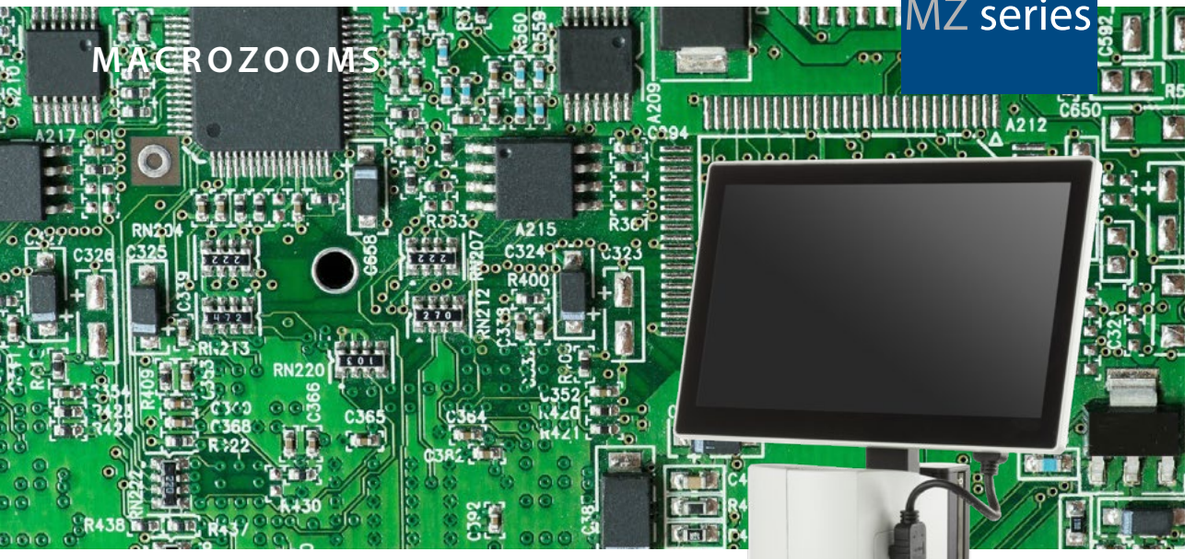
Supplied with a standard ring light, a 32 GB SD card, mouse, HDMI cable and external 100-240 Vac / 12Vdc / 3A power supply

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 inclusief 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 NexiusZoom stands



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

MZ.5000

product information

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**

Adjustable screen

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 5500 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

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

CMEX-5 WiFi-3 5.0 MP

digital WiFi camera with 1/2.8 inch CMOS sensor

The CMEX-5 WiFi-3 1080p camera is equipped with a 5.0 MP Sony CMOS sensor with 12 bits grayscale conversion and a 24 bits color rendering and it can be used either through the USB data interface or through the WiFi interface

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	1/2.8"	3.9 x 3.9	1920 x 1080	12 bits	24 bits	60	66.5	1.3	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

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)	Sony 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-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 cameras are supplied with a 0.45x C-mount objective

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

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

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 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
Cailbration 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)	555	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**

** See for more information chapter 7*

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

The 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 supplied (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

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

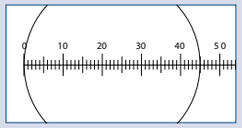
CALCULATING FOV OF AN EYEPIECE

The FOV through an eyepiece is equal to:

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

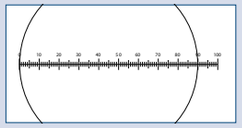
Field number (FN) is usually engraved on the eyepiece as a figure next to the magnification and expressed in mm, e.g. WF 10x/18. A 10x/18 eyepiece with a 40x objective will have a FOV = 18 mm / 40 = 0.45 mm or 450 nm

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

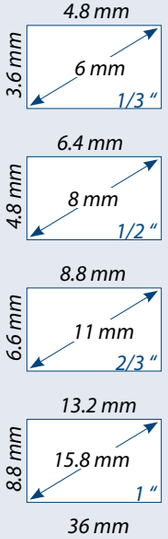


Micrometer stage 1 mm/100

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

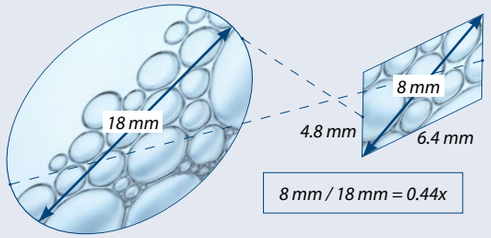
As a consequence, a rectangular camera sensor cannot capture the circular FOV that exits from a eyepiece, microscope third tube or photo port



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%

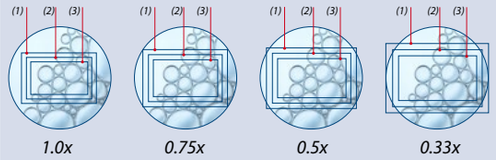


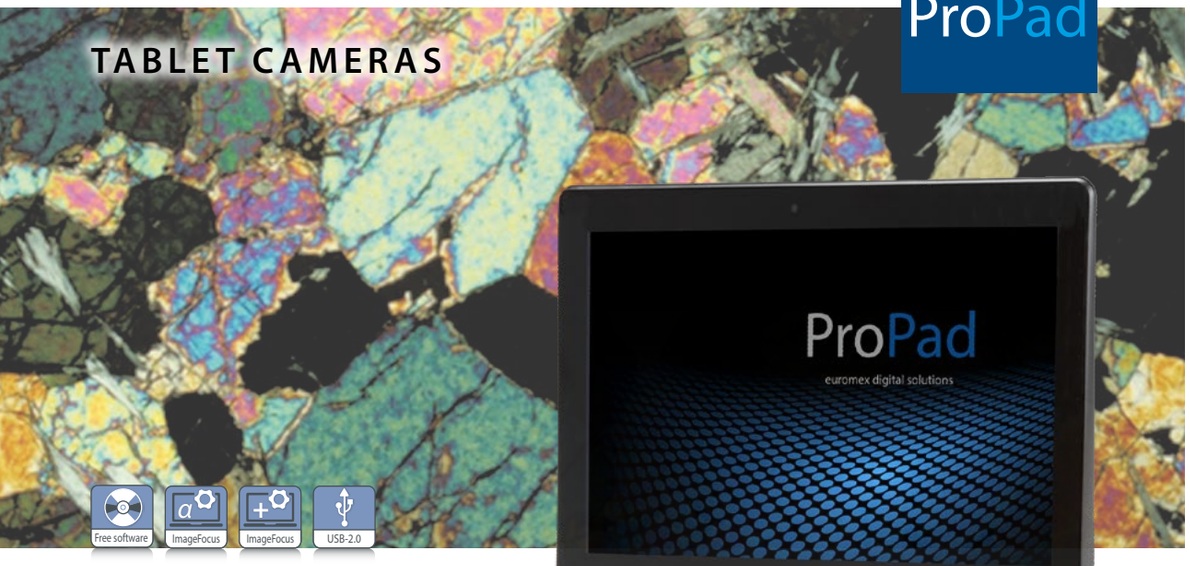
Figure: different camera sensor sizes (2/3, 1/2, 1/3 inch) with different "demagnifying" lenses (C-mount photo-adapters) 0.33x, 0.50x, 0,75x and 1.0x

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

TABLET CAMERAS

ProPad



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 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

product information

SOFTWARE

ProPad-2, ProPad-5 and ProPad-12 work with ImageFocus Plus. ProPad-WiFi works with ImageFocus Alpha. The WiFi camera can also be operated through IOS and Android apps

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**

ProPad and keyboard-docking station

SPECIFICATIONS

Processor	Quad Core 1.92 GHz with HD graphics processor
Screen	10.1 inch, 1280 x 800 (WGXA) 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	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	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	- -	2.0	PP.12000f
ProPad-WiFi	5.0	1/2.8"	1920 x 1080	3.9 x 3.9	12 bits	24 bits	61 dB	1.3		PP.5000-WiFi

All ProPad models are supplied with a C-mount objective that fits the standard 23.2 mm trinocular 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	

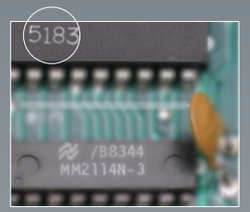
IMAGE FOCUS ALPHA	
DC.3000-Pro	DC.5000-WiFi
DC.5000-Pro	DC.3000s
DC.10000-Pro	DC.6000s
DC.18000-Pro	DC.20000s
VC.3039	VC.3042

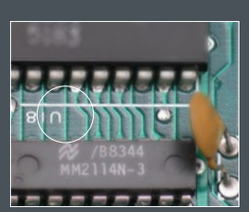
IMAGE STITCHING

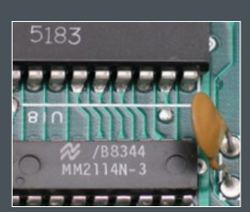
Image stitching is the process of combining multiple images with overlapping fields of view to produce one image

EXTENDED DEPTH OF FOCUS

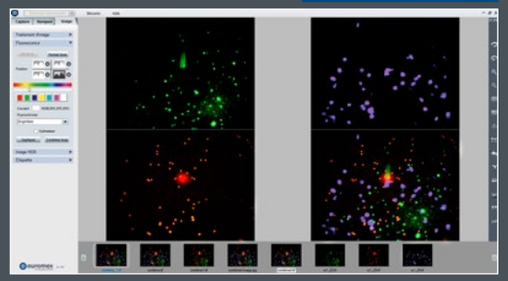
"The extended depth of focus" function in the ImageFocus Alpha software or "stacking software, allows to combine a number of digital images of a object, focused at different focus planes, into one final image with much greater depth of field (see illustration below)







FREE UPDATES AVAILABLE ON EUROMEX.COM

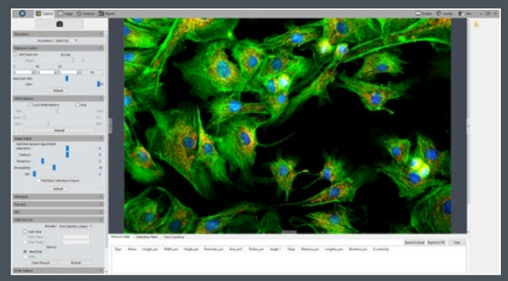


ImageFocus 4 software

- 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

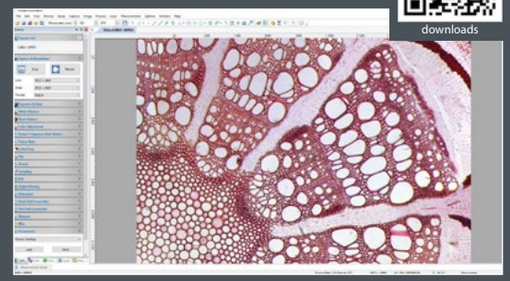


ImageFocus Plus software

- 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 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 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



ImageFocus Alpha software

- ImageFocus Alpha has a wide range of functions:
- Measuring, segmentation & counting, stichting 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

ADAPTERS

FOR ALL MICROSCOPE CAMERAS

adapters

● *AE.5130*

● *NZ.9850*

adapter guide

microscope and camera

Most Euromex cameras are supplied with a photo port c-mount adapterto 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*

DIGITAL SLR ADAPTERS

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

AE.5130 Universal SLR camera adapter for 23.2 mm tube with built-in 2x magnification lens. Needs T2 adapter
AE.5025 T2 adapter for Nikon D digital SLR cameras
AE.5040 T2 adapter for Canon EOS digital SLR cameras

Other T2 adapters on request

● *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, NexiusZoom, 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 NexiusZoom 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

product information

illumination solutions

for stereo microscopy

education university life science industry

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

ACCESSOIRES FOR MICROSCOPY 11

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**

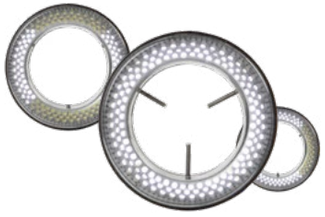
ECONOMICAL AND COMPACT DUAL 3 W LED • LIGHT SOURCE

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

LE.1992 *LE.1993*

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

LE.1992 *LE.1993*

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

PB.5110

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.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

product information

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 Mnium, antheridial branch, l.s
SB.2339 Mnium, archegonial branch, l.s
SB.2373 Coprinus, ink caps mushroom, section of pleus
SB.2380 Spirogyra sp. in conjugation
SB.2420 3 types of bacteria, cocci, bacilli, spirelli

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

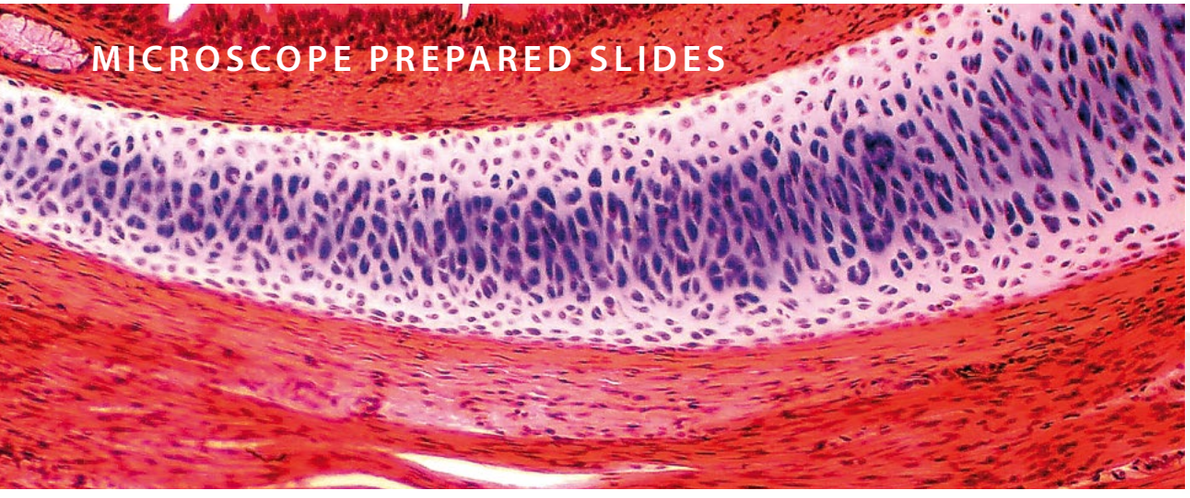
ZOOLOGY

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 Streptococus 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:

EPHITELIUM AND CONNECTIVE TISSUES

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

RESPIRATORY, BLOOD CIRCULATION AND ENDOCRINE SYSTEM

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

DIGESTIVE SYSTEM

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

URINARY AND GENITAL SYSTEM

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

NERVOUS SYSTEM AND SENSORY ORGANS

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

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:

EPHITELIUM 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

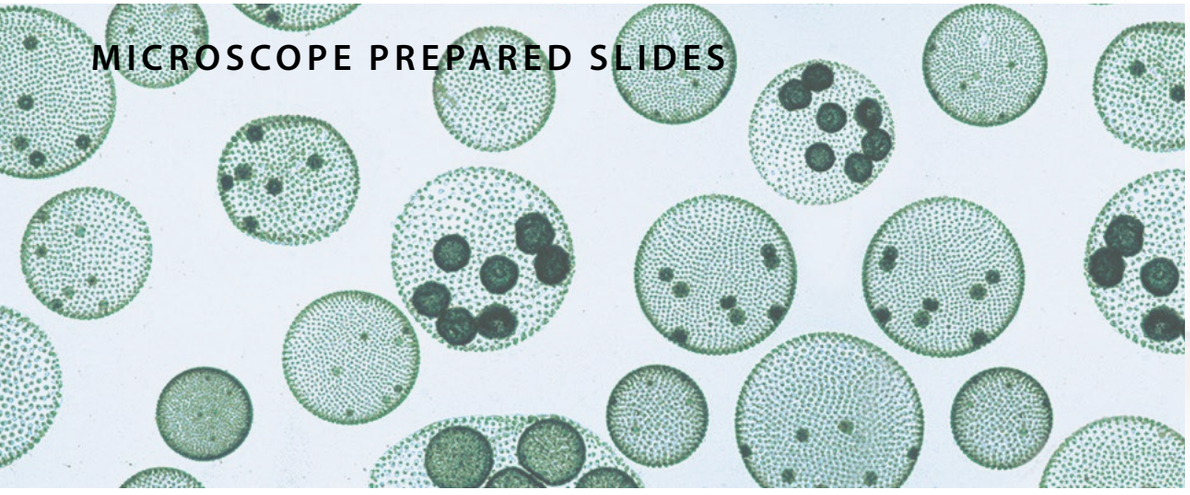
SH.1220 Oesophagus dog, c.s
SH.1235 Large intestine, dog, c.s
SH.1260 Gall bladder, dog, section
SH.1280 Golgi apparatus in Basal spinal ganglion, dog

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.sand c.s
- **SH.1110** Lung with injected blood vessels, rabbit, c.s
- **SZ.1708** Apis mellifica, honey bee, mouth parts
- **SZ.1733** Pieres 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

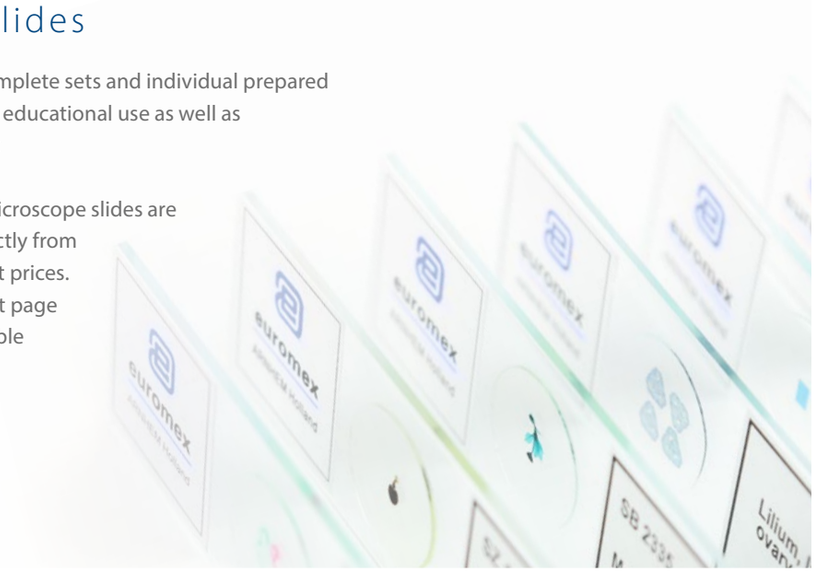
MICROSCOPE PREPARED SLIDES

individual euroslides

prepared slides

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

These high quality microscope slides are usually supplied directly from stock, at the very best prices. The 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 euroslides 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 euroslides 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 uncleaved egg, c.s
SZ.1881 Frog egg, two cells stadium, c.s
SZ.1883 Frog egg, advanced cleavage c.s
SZ.1885 Frog egg, blastula phase, c.s
SZ.1887 Frog egg, early gastrula phase, c.s
SZ.1889 Frog egg, advanced gastrula phase, c.s

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 euroslides 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

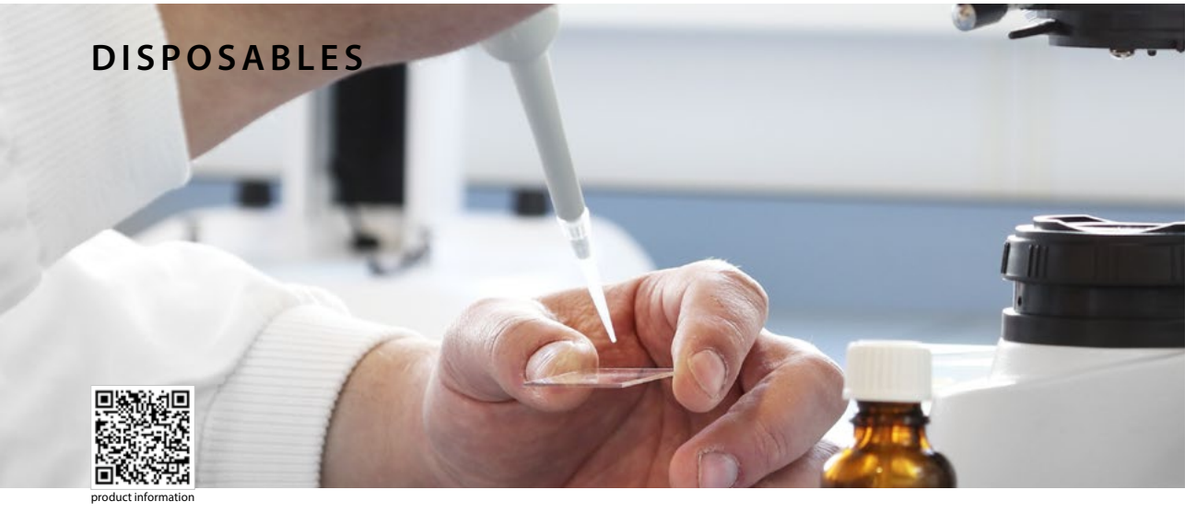
SB.2360 Saccaromyces sp., yeast, budding, w.m
SB.2365 Penicillium sp., w.m
SB.2373 Coprinus, ink caps mushroom, section of pileus
SB.2374 Aspergillus, brown mold, w.m

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



DISPOSABLES

product information

STAINS

Staining enables observation of cells and tissues of low contrast. Euromex offers a range of common stains

product information

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

PB.5150

PB.5180

PB.5168 / PB.5170

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 Safranine. 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 Fuchsine. For staining bacilli in tissue

PB.5276

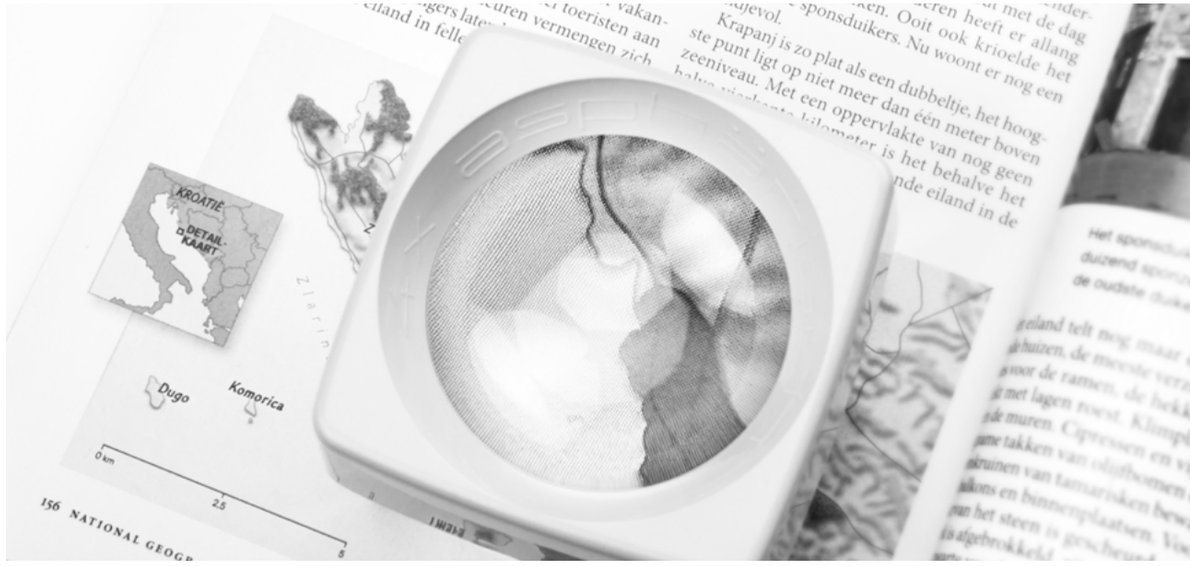
PB.5286 - PB.5297

PB.5210

PB.5245

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

12 OTHER OPTICAL PRODUCTS
MAGNIFIERS | INSTRUMENTS

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.5021

PB.5020

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.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.5032

PB.5016

FOLDING MAGNIFIERS WHITE LED ILLUMINATION

PB.5034-LED Achromatic magnifier 10x triplet. Lens Ø 21 mm. White LED illumination

PB.5018-LED Achromatic magnifier 15x triplet. Lens Ø 21mm. White LED illumination

PB.5033-LED Achromatic magnifier 20x, triplet. Lens Ø 21 mm. White LED illumination

PB.5035-LED Achromatic magnifier 30x triplet. Lens Ø 21 mm. White LED illumination

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-LED

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

PB.5039 / PB.xxxx

PB.5043 / PB.5040

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

PB.5030

PB.5049

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

PB.5008

PB.5046

PB.5047

PB.5044

PB.5048

PB.5045

12 OTHER OPTICAL PRODUCTS MAGNIFIERS | INSTRUMENTS

refractometers

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

● *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 0 - 35 Brix 0 - 27 °KMW 0 - 22 % 0 - 37 CNM	1 0.2 0.2 0.2 0.5	Oechsle units Sugar concentration Babo units % volume	•	•		•	
	RD.6735	0 - 150 °Oe 0 - 35 Brix 0 - 25 °KMW 0 - 22 %	1 0.1 0.1 0.1		•	•			•
	RD.6645	0 - 45 Brix 1.33 - 1.41 R.I.	0.1 0.0003		•	•			•
	RD.6666	0 - 80 Brix 1.33 - 1.51 R.I.	0.5 0.0005		•	•			•
	RD.6667	58 - 92 Brix 1.43 - 1.52 R.I.	0.2 0.0003		•	•			•
Honey	RF.6642	13 - 25 %	0.1	Honey moisture	•	•		•	
	RF.6644	58 - 92 Brix 38 - 43 °Be 12 - 27 %	0.5 0.5 1	 Water	•	•		•	
Concentration of sugar/alcohol %	RF.6627	0 - 25 % 0 - 40 Brix 0 - 20 Baume	0.2 0.2 0.2	% volume	•	•		•	
Salinity and concentration of sugar	RF.6610	0 - 100 ‰ 0 - 10 Brix 1.00 - 1.07 R.I.	1 0.1 0.005		•	•		•	
	RF.6628	0 - 28 %	0.2		•	•		•	
	RD.6728	0 - 28 % 0 - 45 Brix 1.33 - 1.41 R.I.	0.1 0.1 0.0003	% NaCl Only for sugar/salt	•	•			•
Clinical applications Proteins	RF.6612	0 - 12 g/dl 1.00 - 1.05 sg 1.333 - 1.360 R.I	0.2 0.002 0.0003	Proteins in serum Urine specific gravity	•	•		•	

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)					
		1.33 - 1.39	R.I.	0.0001						
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					
		-50 / 0	°C	0.5	Propylene glycol G11/12					
		-40 / 0	°C	0.5	windshield washer fluid					
AdBlue/Urea	RF.6652	0 - 40	%	0.2		•	•		•	
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 & spectroscopes

polarimeters & spectroscopes

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
Spectroscopes are used to visualize the light spectrum of light sources

product information

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

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

Polar scale, range ± 180° 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

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 Ø 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	± 180 °	± 0.1 ° polar scale	•	•	
99.400-LED	± 180 °	± 0.1 ° polar scale	•		•

SPECTROSCOPES

Euromex handheld spectroscopes are used for optical experiments in natural sciences, industry and education

product information

handheld spectroscopes

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

SP.5200

- **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**

MODEL	Dimensions	Weight (grams)	Adjustable slit	Comparison prism	Angle dispersion	Linear dispersion	Wavelength scale	589 nm indication	With 5 glass cuvettes
SP.5200	h50xl115xp23	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	h45x l105xd23	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

microscope selector

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, Nexius-Zoom, DZ series, Z series, MacroZoom
• embryo collection	Embryo collection and transfer in mares, pigs, cows. Quality control	NexiusZoom, DZ series, Z series

UNIVERSITY LABS	FIELD OF APPLICATION	RECOMMENDED MODELS
• embryology	Study of gametes, embryos and foetuses	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 IFV. 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

UNIVERSITY LABS	FIELD OF APPLICATION	RECOMMENDED MODELS
• 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 an 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 Inverted, 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 filed), 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 miology**	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
• pharmaceutics	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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