EN

KERN OPTICS

MICROSCOPES
& REFRACTOMETERS

Laboratory | Industry | Food Industry



2026

PROFESSIONAL MEASURING
SINCE 1844

Product Group Index 2026

MICROSCOPES

Compound Microscopes



1
7—24

Metallurgical Microscopes



2
25—31

Polarising Microscopes



3
32—34

Stereo Microscopes



4
35—57

Video Microscopes



5
59—63

Digital Microscope Sets



6
64—71

Stereo Microscope Sets



7
72—74

Stereo Microscopes
Modular System



8
75—84

External Light Sources
for Stereo Microscopes



9
85—86

Microscope Cameras & Software



10
87—93

REFRACTOMETERS

Analogue Refractometers
Type: Hand-held



11
94—101

Digital Refractometers
Type: Hand-held



12
102—107

Digital Refractometers
Type: Desktop



13
108—109

POLARIMETERS

Manual Polarimeters



14
111—112

1–10

MICROSCOPES











1 **Compound Microscopes** 7
Compound, Phase Contrast, Digital, Fluorescence and Inverted Microscopes

2 **Metallurgical Microscopes** 25

3 **Polarising Microscopes** 32

4 **Stereo Microscopes** 35
Stereo, Stereo-Zoom and Gem Microscopes

5 **Video Microscopes** 59

6 **Digital Microscope Sets** 64

7 **Stereo Microscope Sets** 72

8 **Stereo Microscopes Modular System** 75

9 **External Light Sources for Stereo Microscopes** 85
Ring illumination and cold light sources

10 **Microscope Cameras & Software** 87



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NEW IN → 2026

Innovative technology, stunning performance, improved features – all in proven KERN quality.
You can see all our new additions in 2026 here – come and be inspired.

NEW



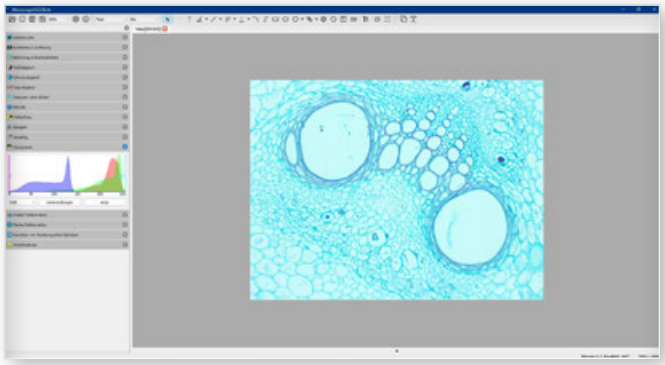
For razor-sharp live images in real time!

→ 4K camera KERN ODC-854

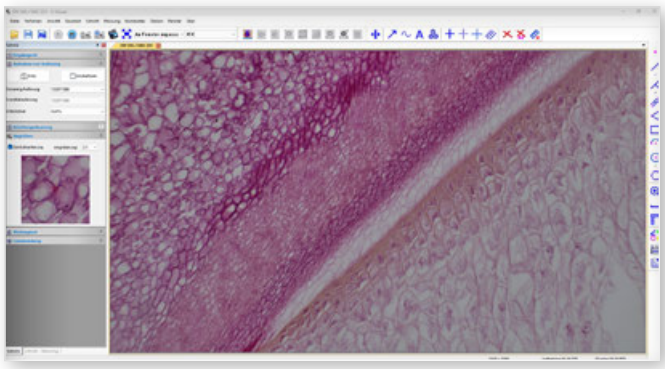
With brilliant image quality, high light sensitivity and versatile connectivity via HDMI, USB or WLAN, the self-contained 4K camera is perfect for precise analyses, detailed images and flexible use in laboratories, training and presentations.

For details, see *Microscope cameras*

NEW



Microscope VIS 2.0 Lite



S-Viewer

The digital specialists for measurement, counting and documentation

→ Microscope camera software VIS 2.0 Pro • VIS 2.0 Lite • S-Viewer

The Microscope VIS Pro, Lite and S-Viewer software solutions offer everything you need for professional work with microscope cameras: live views on a PC or laptop, image and video recording, precise measuring functions and versatile image processing. This makes them the ideal tools for detailed analyses, seamless documentation and daily use – in laboratories, in medical practices and in quality assurance.

For details, see *Microscope cameras*

1

COMPOUND MICROSCOPES

Compound, Phase contrast, Fluorescence and Inverted microscopes



1



OBS 101



OBS 104



OBS 106

Educational Line

The school microscope – for the first steps in microscopy and for use in biology lessons

Features

- The KERN OBS range is a solid and simple school microscope range, which is easy to use due to its intuitive control elements
- The continuously dimmable 0,5 W LED guarantees optimum illumination of the samples and also ensures long service life. Mobile use is also no problem through the use of rechargeable batteries
- The simple 0.65 condenser on the OBS 101 (condenser disc) and on the OBS 102 (fixed condenser) ensures the very best concentration of light and illumination of the sample. The OBS 104, 105 and 106 models have a 1.25 Abbe condenser which is height-adjustable and can therefore be focussed and has an aperture diaphragm, which ensures the very best concentration of light
- To focus the object, all models have a coarse and fine focusing knob on both sides. The mechanical stage enables you to work with the samples and move them rapidly (only for OBS 105, 106)
- A large selection of different eyepieces and objectives is also available
- Please find detailed information in the following model outfit list

Scope of application

- Primary school, secondary school, training, hobby use

Applications/Samples

- Translucent, thin, high-contrast, less complex samples (e.g. plant tissue, coloured cells/ parasites)

Technical data

- Finite optical system DIN
- OBS 101, 102: 3-fold lens revolving unit
  OBS 104, 105, 106: 4-fold lens revolving unit
- OBS 101, 102, 105: Tube 45° inclined/360° rotatable
  OBS 104, 106: Tube 30° inclined/360° rotatable
- Diopter adjustment, both-sided (for binocular models)
- Overall dimensions W×D×H 130×300×310 mm
- Net weight
  OBS 101, 102: approx. 2,2 kg
  OBS 104, 105, 106: approx. 3,2 kg

STANDARD



OBS 104 – 106

Note: Please request special conditions for a classroom set

Model	Tube	Eyepiece	Objective quality	Objectives	Illumination	Stage	Price excl. of VAT ex works €
KERN							
OBS 101*	Monocular	WF 10x/Ø 18 mm	achromatic	4x / 10x / 40x	0,5W LED (transmitted) (battery incl., rechargeable)	fix	**170,–**
OBS 102*	Monocular	WF 10x/Ø 18 mm	achromatic	4x / 10x / 40x	0,5W LED (transmitted) (battery incl., rechargeable)	fix	**180,–**
OBS 104*	Binocular	WF 10x/Ø 18 mm	achromatic	4x / 10x / 40x	0,5W LED (transmitted) (battery incl., rechargeable)	fix	**270,–**
OBS 105*	Monocular	WF 10x/Ø 18 mm	achromatic	4x / 10x / 40x	0,5W LED (transmitted) (battery incl., rechargeable)	mechanical	**230,–**
OBS 106*	Binocular	WF 10x/Ø 18 mm	achromatic	4x / 10x / 40x	0,5W LED (transmitted) (battery incl., rechargeable)	mechanical	**315,–**

! * ONLY WHILE STOCKS LAST

Model outfit		Model KERN					Order number	Price/piece excl. of VAT ex works €
		OBS 101	OBS 102	OBS 104	OBS 105	OBS 106		
Eyepieces (23,2 mm)	WF 10x/Ø 18 mm	✓	✓	✓✓	✓	✓✓	OBB-A1473	**35,–**
	WF 16x/Ø 13 mm	○	○	○○	○	○○	OBB-A1474	**35,–**
	WF 20x/Ø 11 mm	○	○	○○	○	○○	OBB-A1475	**35,–**
	WF 10x/Ø 18 mm (with Pointer)	○	○	○	○	○	OBB-A1561	**35,–**
Achromatic objectives	4x/0,1 W.D. 18 mm	✓	✓	✓	✓	✓	OBB-A1476	**40,–**
	10x/0,25 W.D. 7 mm	✓	✓	✓	✓	✓	OBB-A1477	**45,–**
	40x/0,65 (spring-loaded) W.D. 0,53 mm	✓	✓	✓	✓	✓	OBB-A1478	**50,–**
	60x/0,85 (spring-loaded) W.D. 0,1 mm	○	○	○	○	○	OBB-A1479	**65,–**
	100x/1,25 (oil) (spring-loaded) W.D. 0,07 mm	○	○	○	○	○	OBB-A1480	**70,–**
E-Plan objectives	4x/0,1 W.D. 14,5 mm	○	○	○	○	○	OBB-A1562	**45,–**
	10x/0,25 W.D. 5,65 mm	○	○	○	○	○	OBB-A1563	**60,–**
	40x/0,65 (spring-loaded) W.D. 0,85 mm	○	○	○	○	○	OBB-A1564	**90,–**
	100x/1,25 (oil) (spring-loaded) W.D. 0,07 mm	○	○	○	○	○	OBB-A1565	**95,–**
	E-Plan 100x/0,8 (dry) (spring-loaded) W.D. 0,15 mm	○	○	○	○	○	OBB-A1442	**190,–**
	Plan 100x/1 (water) (spring-loaded) W.D. 0,18 mm	○	○	○	○	○	OBB-A1441	**205,–**
Monocular tube	45° inclined/360° revolving	✓	✓		✓		OBB-A1471	**55,–**
Binocular tube	· Siedentopf 45° inclined/360° rotatable · Interpupillary distance 55 mm – 75 mm · Diopter adjustment both-sided			✓		✓	OBB-A1472	**140,–**
Fixed stage	· Stage size W×D 110×120 mm · Coaxial coarse and fine focusing knobs, scale: 2,5 µm	✓	✓	✓			OBB-A1483	**30,–**
Mechanical stage	· Stage size B×T 125×115 mm · Travel 75×18 mm · Coaxial coarse and fine focusing knobs, scale: 2,5 µm				✓	✓	OBB-A1484	**55,–**
Condenser	Simple condenser N.A. 0,65	✓					OBB-A1486	**15,–**
	Simple condenser N.A. 0,65 (with aperture diaphragm)		✓				OBB-A1566	**35,–**
	Abbe N.A. 1,25 (aperture diaphragm)			✓	✓	✓	OBB-A1487	**45,–**
Colour filters for transmitted illumination	Blue			✓	✓	✓	OBB-A1466	**25,–**
	Green			○	○	○	OBB-A1467	**25,–**
	Yellow			○	○	○	OBB-A1468	**25,–**
	Grey			○	○	○	OBB-A1184	**25,–**

✓ = included with the delivery ○ = Option

Further accessories and spare parts see *internet*



OBT 231



Monocular version



Binocular version



LCD display ODC 231

Educational Line

The modern compound microscope for teaching in your class room

Features

- The KERN OBT range is a high-quality school microscope, which will impress you with its intuitive control elements, sturdy construction and modern design.
- The infinitely dimmable 1W LED guarantees optimum illumination of the samples and also ensures long service life. Mobile use is also no problem through optional battery operation
- The simple 0.65 condenser lens with adjustable aperture diaphragm on the OBT 101 ensures the very best concentration of light and illumination of the sample. The OBT 102, 103, 104, 105, 106 models have a 1.25 Abbe condenser which is height-adjustable and can therefore be focussed and has an aperture diaphragm, which ensures the very best concentration of light.
- To focus the object, all models have a coarse and fine focusing knob on both sides. The mechanical stage enables you to work with the samples and move them rapidly (only for OBT 103, 104, 105, 106)
- A large selection of different eyepieces and objectives is also available
- KERN OBT 231: Digital kit with LCD display for viewing samples, USB dual power supply for microscopes and displays, software for measurements as well as a USB interface and micro SD card slot for documenting recordings
- KERN ODC 231: LCD display, can be retrofitted on all models of the OBT range, see model fittings table
- A dust cover as well as user instructions are included with the delivery
- Please find detailed information in the following model outfit list

Scope of application

- Primary school, secondary school, training, hobby

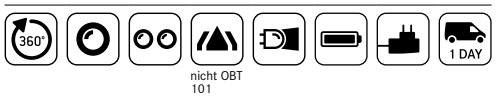
Applications/Samples

- Translucent, thin, high-contrast, less complex samples (e.g. plant tissue, coloured cells/ parasites)

Technical data

- Finite optical system DIN
- OBT 101: 3-fold lens revolving unit, OBT 102, 103, 104, 105, 106, OBT 231: 4-fold lens revolving unit
- OBT-1: Tube 45° inclined/360° rotatable
- Diopter adjustment, one-sided (for binocular models)
- Overall dimensions W×D×H
  OBT-1: 195×147×325 mm
  OBT-2: 182×195×360 mm
- Net weight
  OBT-1: approx. 2,8 kg
  OBT-2: approx. 3,0 kg

STANDARD



nicht OBT 101

OPTION



Note: Please request special conditions for a classroom set

Model	Tube	Eyepiece	Objective quality	Objectives	Illumination	Stage	Price excl. of VAT ex works €
KERN							
OBT 101	Monocular	WF 10x/Ø 18 mm	achromatic	4x / 10x / 40x	1 W LED (transmitted)	fix	**195,–**
OBT 102	Monocular	WF 10x/Ø 18 mm	achromatic	4x / 10x / 40x	1 W LED (transmitted)	fix	**215,–**
OBT 103	Monocular	WF 10x/Ø 18 mm	achromatic	4x / 10x / 40x	1 W LED (transmitted)	mechanical	**250,–**
OBT 104	Binocular	WF 10x/Ø 18 mm	achromatic	4x / 10x / 40x	1 W LED (transmitted)	mechanical	**335,–**
OBT 105	Monocular	WF 10x/Ø 18 mm	achromatic	4x / 10x / 40x / 100x	1 W LED (transmitted)	mechanical	**275,–**
OBT 106	Binocular	WF 10x/Ø 18 mm	achromatic	4x / 10x / 40x / 100x	1 W LED (transmitted)	mechanical	**355,–**
OBT 231	LCD Display	–	achromatic	4x / 10x / 40x / 100x	1 W LED (transmitted)	mechanical	**760,–**

Model outfit		Model KERN							Order number	Price/piece excl. of VAT ex works €
		OBT 101	OBT 102	OBT 103	OBT 104	OBT 105	OBT 106	OBT 231		
Eyepieces (23,2 mm)	WF 10x/Ø 18 mm	✓	✓	✓	✓✓	✓	✓✓		OBB-A3200	**35,–**
	WF 10x/Ø 18 mm (with Pointer)	○	○	○	○	○	○		OBB-A3201	**35,–**
	WF 10x/Ø 18 mm (reticule 0,1 mm)	○	○	○	○	○	○		OBB-A3202	**35,–**
Achromatic objectives	4x/0,1 W.D. 27 mm	✓	✓	✓	✓	✓	✓	✓	OBB-A3203	**30,–**
	10x/0,25 W.D. 7 mm	✓	✓	✓	✓	✓	✓	✓	OBB-A3204	**35,–**
	40x/0,65 (spring-loaded) W.D. 0,6 mm	✓	✓	✓	✓	✓	✓	✓	OBB-A3205	**45,–**
	100x/1,25 (oil) (spring-loaded) W.D. 0,2 mm	○	○	○	○	✓	✓	✓	OBB-A3207	**65,–**
Monocular tube	45° inclined/360° revolving	✓	✓	✓	○	✓	○	○	OBB-A3221	**160,–**
Binocular tube	· Siedentopf 45° inclined/360° rotatable · Interpupillary distance 48 mm – 75 mm · Diopter adjustment one-sided	○	○	○	✓	○	✓	○	OBB-A3222	**230,–**
Tube with LCD display	· Tablet camera 2 MP · CMOS 1/2,8“ · USB 2.0	○	○	○	○	○	○	✓	ODC 231	**490,–**
Fixed stage	· Stage size B×T 115×110 mm · Coaxial coarse and fine focusing knobs, scale: 2 µm	✓	✓							
Mechanical stage	· Stage size B×T 115×110 mm · Travel 52×20 mm · Coaxial coarse and fine focusing knobs, scale: 2 µm · Holder for one slide			✓	✓	✓	✓	✓		
Condenser	Simple condenser N.A. 0,65	✓							OBB-A3223	**45,–**
	Abbe N.A. 1,25 (aperture diaphragm)		✓	✓	✓	✓	✓	✓	OBB-A3224	**50,–**
Colour filters for transmitted illumination	Blue	○	○	○	○	○	○	○	OBB-A3212	**25,–**
	Green	○	○	○	○	○	○	○	OBB-A3210	**25,–**
	Yellow	○	○	○	○	○	○	○	OBB-A3211	**25,–**
	Grey	○	○	○	○	○	○	○	OBB-A3209	**25,–**

✓ = included with the delivery ○ = Option

Further accessories and spare parts see *internet*





Monocular version



Trinocular version



Butterfly tube

Educational Line

Elegant, dynamic and impressive – the all-round compound microscope for schools, training and laboratories

Features

- The OBE-12/13 range stands out through its exclusive, dynamic device, which is second to none in terms of sturdy construction and ergonomics. The clever storage compartment on the back will enables quick practical storage for your power cable. Thanks to the USB connection technology, it is also possible to supply power using an external powerbank.
- The impressive, infinitely dimmable 3W LED guarantees bright illumination of your sample
- A further highlight is the butterfly lens barrel which enables you to achieve the ideal viewing angle and is integrated as standard on all binocular and trinocular models. The height-adjustable and thereby focusable 1.25 Abbe condenser with aperture diaphragm is a further quality feature of the OBE range and guarantees the very best concentration of light
- Height adjustment of the fully-equipped mechnical stage is carried out using a coarse and fine focusing knob on bothsides. The ergonomically designed coaxial drive enables you to work with the samples and move them rapidly
- A large selection of different eyepieces and objectives are available to you as accessories
- A protective dust cover, eye cups, as well as multi-lingual user instructions are included in the scope of delivery
- A C-mount adapter is required to connect a camera to the trinocular version. You can select this adapter from the following model outfit list.
- Please find detailed information in the following model outfit list

Scope of application

- Training, haematology, sediment investigation, doctor's practise, Veterinary

Applications/Samples

- Translucent, thin, high-contrast, less complex samples (e.g. plant tissue, coloured cells/ parasites)

Technical data

- Finite optical system DIN
- 4-fold lens revolving unit
- OBE 121, 131: Monocular lens barrel, 30° angled
- OBE 122, 124, 132, 134: Butterfly 30° angled
- Diopter adjustment, one-sided (for binocular and trinocular models)
- Overall dimensions W×D×H 360×150×320 mm
- Net weight approx. 4,6 kg

STANDARD



OPTION



Note: Please request special conditions for a classroom set

Model	Tube	Eyepiece	Objective quality	Objectives	Illumination	Price excl. of VAT ex works €
KERN						
OBE 121	Monocular	HWF 10x/Ø 18 mm	achromatic	4x / 10x / 40x	3 W LED (transmitted)	**490,–**
OBE 122	Binocular	HWF 10x/Ø 18 mm	achromatic	4x / 10x / 40x	3 W LED (transmitted)	**580,–**
OBE 124	Trinocular	HWF 10x/Ø 18 mm	achromatic	4x / 10x / 40x	3 W LED (transmitted)	**690,–**
OBE 131	Monocular	HWF 10x/Ø 18 mm	achromatic	4x / 10x / 40x / 100x	3 W LED (transmitted)	**540,–**
OBE 132	Binocular	HWF 10x/Ø 18 mm	achromatic	4x / 10x / 40x / 100x	3 W LED (transmitted)	**640,–**
OBE 134	Trinocular	HWF 10x/Ø 18 mm	achromatic	4x / 10x / 40x / 100x	3 W LED (transmitted)	**760,–**

Model outfit		Model KERN						Order number	Price/piece excl. of VAT ex works €
		OBE 121	OBE 122	OBE 124	OBE 131	OBE 132	OBE 134		
Eyepieces (23,2 mm)	HWF 10x/Ø 18 mm	✓	✓✓	✓✓	✓	✓✓	✓✓	OBB-A1403	**50,–**
	WF 16x/Ø 13 mm	○	○○	○○	○	○○	○○	OBB-A1354	**50,–**
	HWF 10x/Ø 18 mm (reticule 0,1 mm) (non-adjustable)	○	○	○	○	○	○	OBB-A1349	**65,–**
	HWF 10x/Ø 18 mm (with Pointer)	○	○	○	○	○	○	OBB-A1348	**45,–**
Achromatic objectives	4x/0,1 W.D. 18,6 mm	✓	✓	✓	✓	✓	✓	OBB-A1111	**40,–**
	10x/0,25 W.D. 6,5 mm	✓	✓	✓	✓	✓	✓	OBB-A1108	**50,–**
	40x/0,65 (spring-loaded) W.D. 0,47 mm	✓	✓	✓	✓	✓	✓	OBB-A1112	**80,–**
	100x/1,25 (oil) (spring-loaded) W.D. 0,07 mm	○	○	○	✓	✓	✓	OBB-A1109	**115,–**
	20x/0,4 (spring-loaded) W.D. 1,75 mm	○	○	○	○	○	○	OBB-A1110	**95,–**
	60x/0,85 (spring-loaded) W.D. 0,1 mm	○	○	○	○	○	○	OBB-A1113	**115,–**
	E-Plan 100x/0,8 (dry) (spring-loaded) W.D. 0,15 mm	○	○	○	○	○	○	OBB-A1442	**190,–**
	Plan 100x/1 (water) (spring-loaded) W.D. 0,18 mm	○	○	○	○	○	○	OBB-A1441	**205,–**
Monocular tube	Butterfly 30° inclined	✓			✓				
Binocular tube	· Butterfly 30° inclined · Interpupillary distance 48 mm – 75 mm · Diopter adjustment one-sided		✓			✓			
Trinocular tube	· see binocular tube · Light distribution 20:80			✓			✓		
Mechanical stage	· Stage size B×T 125×115 mm · Travel 50×70 mm · Coaxial coarse and fine focusing knobs, scale: 2 µm	✓	✓	✓	✓	✓	✓	OBB-A1329	**120,–**
Condenser	Abbe N.A. 1,25 (aperture diaphragm)	✓	✓	✓	✓	✓	✓	OBB-A1101	**95,–**
Darkfield unit	Usable for 4x – 40x objectives	○	○	○	○	○	○	OBB-A1148	**95,–**
Colour filters for transmitted illumination	Blue	○	○	○	○	○	○	OBB-A1466	**25,–**
	Green	○	○	○	○	○	○	OBB-A1467	**25,–**
	Yellow	○	○	○	○	○	○	OBB-A1468	**25,–**
	Grey	○	○	○	○	○	○	OBB-A1184	**25,–**
C-Mount	0,5x (focus adjustable)			○			○	OBB-A1137	**175,–**
	1x			○			○	OBB-A1139	**110,–**

✓ = included with the delivery ○ = Option

Further accessories and spare parts
see *internet*





Trinocular version



Simple polarising unit

Lab Line

The flexible laboratory assistant with infinity optical system and fixed, pre-centred Koehler illumination

Features

- The OBL series stands out through its infinity optical unit and is therefore ideally suited for all demanding transmitted illumination applications. The robust and ergonomic stand base guarantees safe and comfortable working
- The fixed, pre-centred and focusable 1,25 Abbe condenser with aperture diaphragm and field diaphragm gives you a simplified Koehler illumination, without having to move the centre.
- The large mechanical stage and its specimen holder holds up to two samples at the same time and is quick and easy to focus using a coaxial coarse and fine focusing knob on both sides
- A large selection of eyepieces, objectives and colour filters as well as a darkfield condenser, a simple polarising unit, different phase contrast kits through to LED fluorescence units are available to you as accessories
- A protective dust cover, eye cups, as well as multi-lingual user instructions are included in the scope of delivery
- A C-mount adapter is required to connect a camera to the trinocular version. You can select this adapter from the following model outfit list.
- Please find detailed information in the following model outfit list

Scope of application

- Haematology, urology, gynaecology, dermatology, pathology, microbiology and parasitology, immunology, sewage treatment plants, oncology, entomology, veterinary practices, water analysis, breweries

Applications/Samples

- Translucent, thin, low-contrast, challenging samples (e.g. living mammal cells, bacteria, tissue)

Technical data

- Infinity optical system
- 4-fold lens revolving unit
- Siedentopf 30° inclined/360° rotatable
- Diopter adjustment, one-sided
- Overall dimensions W×D×H 395×200×380 mm
- Net weight approx. 7 kg

STANDARD



OPTION



Model	Tube	Eyepiece	Objective quality	Objectives	Illumination	Price excl. of VAT ex works €
KERN						
OBL 127	Binocular	HWF 10x/Ø 20 mm	Infinity E-Plan	4x / 10x / 40x / 100x	3 W LED (transmitted)	**970,–**
OBL 137	Trinocular	HWF 10x/Ø 20 mm	Infinity E-Plan	4x / 10x / 40x / 100x	3 W LED (transmitted)	**1110,–**

Model outfit		Model KERN OBL 127	Model KERN OBL 137	Order number	Price/piece excl. of VAT ex works €
Eyepieces (23,2 mm)	HWF 10x/Ø 20 mm	✓✓	✓✓	OBB-A1404	**105,–**
	WF 16x/Ø 13 mm	○○	○○	OBB-A1354	**50,–**
	HWF 10x/Ø 20 mm (with Pointer)	○	○	OBB-A1448	**90,–**
Infinity E-Plan objectives	4x/0,11 W.D. 12,1 mm	✓	✓	OBB-A1161	**100,–**
	10x/0,25 W.D. 2,1 mm	✓	✓	OBB-A1159	**165,–**
	40x/0,66 (spring-loaded) W.D. 0,58 mm	✓	✓	OBB-A1160	**290,–**
	100x/1,25 (oil) (spring-loaded) W.D. 0,19 mm	✓	✓	OBB-A1158	**365,–**
	Plan 20x/0,45 (spring-loaded) W.D. 2,41 mm	○	○	OBB-A1250	**290,–**
	Plan 60x/0,8 (spring-loaded) W.D. 0,33 mm	○	○	OBB-A1270	**390,–**
	Plan 100x/1,15 (water) (spring-loaded) W.D. 0,18 mm	○	○	OBB-A1437	**490,–**
Binocular tube	· Butterfly 30° inclined/360° rotatable · Interpupillary distance 50 mm – 75 mm · Diopter adjustment one-sided	✓	○	OBB-A1578	**290,–**
Trinocular tube	· Butterfly 30° inclined/360° rotatable · Interpupillary distance 50 mm – 75 mm · Light distribution 20:80 · Diopter adjustment one-sided	○	✓	OBB-A1580	**400,–**
Mechanical stage	· Stage size B×T 145×130 mm · Travel 76×52 mm · Coaxial coarse and fine focusing knobs, scale: 2 µm · Two slide holder	✓	✓		
Condenser	Abbe N.A. 1,25 precentered (aperture diaphragm)	✓	✓	OBB-A1103	**95,–**
Darkfield condenser	N.A. 0,85-0,91 (dry, paraboloid)	○	○	OBB-A1422	**250,–**
Polarising unit	Analyser/Polariser	○	○	OBB-A1277	**290,–**
Phase contrast units	Single unit with ∞ PH-Plan-objective 10×	○	○	OBB-A1215	**340,–**
	Single unit with ∞ PH-Plan-objective 20×	○	○	OBB-A1217	**390,–**
	Single unit with ∞ PH-Plan-objective 40 ×	○	○	OBB-A1219	**470,–**
	Single unit with ∞ PH-Plan-objective 100×	○	○	OBB-A1213	**570,–**
Fluorescence unit	100 W HBO Epi fluorescent unit, 6-filter-disc (B/G) including centring objective lens	○	○	OBB-A1153	**3490,–**
	5W LED Epi Flourecence unit (B/G) including centering objective	○	○	OBB-A1157	**3550,–**
Colour filters for transmitted illumination	Blue	○	○	OBB-A1170	**25,–**
	Green	○	○	OBB-A1188	**25,–**
	Yellow	○	○	OBB-A1165	**25,–**
	Grey	○	○	OBB-A1183	**25,–**
C-Mount	0,5x (focus adjustable)		○	OBB-A1515	**200,–**
	1x		○	OBB-A1514	**130,–**

✓ = included with the delivery ○ = Option

Further accessories and spare parts see *internet*





Mounted phase contrast condenser



Simple PH condenser with 40× PH slide

Lab Line

High-quality phase contrast microscope – specially pre-configured with a series of options for flexible expansion

Features

- We have developed this series specially for general applications with phase contrast method. In addition, the stable, modular construction system of the OBL series offers many more options.
- The impressive, infinitely dimmable 3W LED guarantees bright illumination of your sample
- A special fixed, pre-centred phase contrast condenser as well as field diaphragm give you a simplified Köhler illumination and thereby a powerful phase-contrast display of your sample
- The large mechanical stage and its specimen holder holds up to two samples at the same time and is quick and easy to focus using a coaxial coarse and fine focusing knob on both sides
- A large selection of eyepieces, objectives and colour filters, a simple polarizing unit as well as further phase contrast units are available to you as accessories
- A protective dust cover, eye cups, as well as multi-lingual user instructions are included in the scope of delivery
- A C-mount adapter is required to connect a camera to the trinocular version. You can select this adapter from the following model outfit list.
- Please find detailed information in the following model outfit list

Scope of application

- Haematology, urology, gynaecology, dermatology, pathology, microbiology and parasitology, immunology, sewage treatment plants, oncology, entomology, veterinary practices, water analysis, breweries

Applications/Samples

- Specially for extremely translucent, thin, low-contrast, challenging samples (e.g. living mammal cells, bacteria, tissue) with phase contrast

Technical data

- Infinity optical system
- 4-fold lens revolving unit
- Siedentopf 30° inclined/360° rotatable
- Diopter adjustment, one-sided
- Overall dimensions W×D×H 395×200×380 mm
- Net weight approx. 6 kg

STANDARD



OPTION



Model	Tube	Eyepiece	Objective quality	Objectives	Illumination	Price excl. of VAT ex works €
KERN						
OBL 146	Binocular	HWF 10x/Ø 20 mm	Infinity E-Plan / Plan	4x / 10x / 40x / 100x	3 W LED (transmitted)	**1580,–**
OBL 156	Trinocular	HWF 10x/Ø 20 mm	Infinity E-Plan / Plan	4x / 10x / 40x / 100x	3 W LED (transmitted)	**1700,–**

Model outfit		Model KERN		Order number	Price/piece excl. of VAT ex works €
		OBL 146	OBL 156		
Eyepieces (23,2 mm)	HWF 10x/Ø 20 mm	✓✓	✓✓	OBB-A1404	**105,–**
	WF 16x/Ø 13 mm	○○	○○	OBB-A1354	**50,–**
	HWF 10x/Ø 20 mm (with Pointer)	○	○	OBB-A1448	**90,–**
Infinity E-Plan objectives	4x/0,11 W.D. 12,1 mm	✓	✓	OBB-A1161	**100,–**
	10x/0,25 W.D. 2,1 mm	○	○	OBB-A1159	**165,–**
	40x/0,66 (spring-loaded) W.D. 0,58 mm	○	○	OBB-A1160	**290,–**
	100x/1,25 (oil) (spring-loaded) W.D. 0,19 mm	✓	✓	OBB-A1158	**365,–**
	Plan 20x/0,45 (spring-loaded) W.D. 2,41 mm	○	○	OBB-A1250	**290,–**
	Plan 60x/0,8 (spring-loaded) W.D. 0,33 mm	○	○	OBB-A1270	**390,–**
	Plan 100x/1,15 (water) (spring-loaded) W.D. 0,18 mm	○	○	OBB-A1437	**490,–**
Binocular tube	· Butterfly 30° inclined/360° rotatable · Interpupillary distance 50 mm – 75 mm · Diopter adjustment one-sided	✓	○	OBB-A1578	**290,–**
Trinocular tube	· Butterfly 30° inclined/360° rotatable · Interpupillary distance 50 mm – 75 mm · Light distribution 20:80 · Diopter adjustment one-sided	○	✓	OBB-A1580	**400,–**
Mechanical stage	· Stage size B×T 145×130 mm · Travel 76×52 mm · Coaxial coarse and fine focusing knobs, scale: 2 µm · Two slide holder	✓	✓		
PH condenser	Abbe N.A. 1,25 precentered, for bringht field ans phase contrast	✓	✓	OBB-A1398	**165,–**
Phase contrast units	Infinity PH-Plan-objective 10x	✓	✓	OBB-A1390	**185,–**
	Infinity PH-Plan-objective 20x	○	○	OBB-A1391	**220,–**
	Infinity PH-Plan-objective 40x	✓	✓	OBB-A1392	**285,–**
	Infinity PH-Plan-objective 100x	○	○	OBB-A1393	**375,–**
	PH Slider 10×	✓	✓	OBB-A1399	**85,–**
	PH Slider 20×	○	○	OBB-A1400	**85,–**
	PH Slider 40×	✓	✓	OBB-A1401	**85,–**
	PH Slider 100×	○	○	OBB-A1402	**85,–**
	Centring eyepiece	✓	✓	OBB-A1383	**105,–**
Darkfield condenser	N.A. 0,85-0,91 (dry, paraboloid)	○	○	OBB-A1422	**250,–**
Colour filters for transmitted illumination	Blue	✓	✓	OBB-A1170	**25,–**
	Green	✓	✓	OBB-A1188	**25,–**
	Yellow	○	○	OBB-A1165	**25,–**
	Grey	○	○	OBB-A1183	**25,–**
C-Mount	0,5x (focus adjustable)		○	OBB-A1515	**200,–**
	1x		○	OBB-A1514	**130,–**

✓ = included with the delivery ○ = Option

Further accessories and spare parts
see *internet*



OBN-13



OBN-15



Mounted phase contrast condenser



Professional Line

Professionalism and versatility united in one microscope – with Koehler illumination for demanding applications

Features

- The OBN- series stands out because of its unbeatable and consistently high quality and its ergonomic design. The range of modular components means that the OBN series can be individually customised for the professional user.
- Depending on the application, there is a choice of models with strong, continuously dimmable 3 W LED or 20 W halogen illumination (Philips)
- In addition the microscope is available as a pre-configured phase contrast microscope, which, through the combination of a professional quintuple condenser wheel, phase contrast condenser and Infinity Plan phase contrast objectives makes it a high-quality, fully-equipped microscope for all applications related to this contrasting method
- This series has a professional Koehler illumination unit with an adjustable field diaphragm as well as a height-adjustable 1,25 Abbe condenser which can be centred and which has an adjustable aperture diaphragm.
- The extremely large mechanical stage with ergonomic, coaxial coarse and fine focusing knob on both sides enables you to adjust and focus your sample rapidly and accurately
- A wide variety of modular systems, such as, for example, a swing-out condenser, various eyepieces, objectives, colour filters, phase contrast units, a darkfield condenser, a simple polarising unit, a Butterfly Tube, through to complete fluorescence units are available to you as accessories
- KERN OBN 15: This centring eyepiece for adjusting the phase contrast, a protective dust cover, eye cups as well as multi-lingual user instructions are included in the scope of delivery
- A C-mount adapter is required to connect a camera to the trinocular version. You can select this adapter from the following model outfit list.
- Please find detailed information in the following model outfit list

Scope of application

- Haematology, urology, gynaecology, dermatology, pathology, microbiology and parasitology, immunology, sewage treatment plants, oncology, entomology, veterinary practices, water analysis, breweries

Applications/Samples

- Translucent, thin, low-contrast, challenging samples (e.g. living mammal cells, bacteria, tissue)

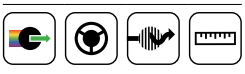
Technical data

- Infinity optical system
- Quintuple nosepiece
- Siedentopf 30° inclined/360° rotatable
- Diopter adjustment, both-sided
- Overall dimensions W×D×H 390×200×395 mm
- Net weight approx. 10 kg

STANDARD



OPTION



Model	Tube	Eyepiece	Objective quality	Objectives	Illumination	Price excl. of VAT ex works €
KERN						
OBN 132*	Trinocular	HWF 10x/Ø 20 mm	Infinity Plan	4x / 10x / 20x / 40x / 100x	20 W Halogen (transmitted)	**1610,–**
OBN 135	Trinocular	HWF 10x/Ø 20 mm	Infinity Plan	4x / 10x / 20x / 40x / 100x	3 W LED (transmitted)	**1640,–**
OBN 158	Trinocular	HWF 10x/Ø 20 mm	Infinity Plan	4x / 10x / 20x / 40x / 100x	20 W Halogen (transmitted)	**2920,–**
OBN 159	Trinocular	HWF 10x/Ø 20 mm	Infinity Plan	4x / 10x / 20x / 40x / 100x	3 W LED (transmitted)	**2940,–**

! * ONLY WHILE STOCKS LAST

Model outfit		Model KERN				Order number	Price/piece excl. of VAT ex works €
		OBN 132	OBN 135	OBN 158	OBN 159		
Eyepieces (23,2 mm)	HWF 10x/Ø 20 mm	✓✓	✓✓	✓✓	✓✓	OBB-A1404	**105,–**
	WF 16x/Ø 13 mm	○○	○○	○○	○○	OBB-A1354	**50,–**
Infinity Plan achromatic objectives	4x/0,11 W.D. 12,1 mm	✓	✓	✓	✓	OBB-A1263	**120,–**
	10x/0,25 W.D. 4,64 mm	✓	✓	○	○	OBB-A1243	**215,–**
	20x/0,45 (spring-loaded) W.D. 2,41 mm	✓	✓	○	○	OBB-A1250	**290,–**
	40x/0,65 (spring-loaded) W.D. 0,65 mm	✓	✓	○	○	OBB-A1257	**315,–**
	100x/1,25 (oil) (spring-loaded) W.D. 0,19 mm	✓	✓	○	○	OBB-A1240	**340,–**
	Plan 60x/0,8 (spring-loaded) W.D. 0,33 mm	○	○	○	○	OBB-A1270	**390,–**
	Plan 100x/1,15 (water) (spring-loaded) W.D. 0,18 mm	○	○	○	○	OBB-A1437	**490,–**
Trinocular tube	· Butterfly 30° inclined/360° rotatable · Interpupillary distance 50 mm – 75 mm · Light distribution 0:100 · Diopter adjustment both-sided	✓	✓	✓	✓	OBB-A1382	**570,–**
Mechanical stage	· Stage size B×T 175×145 mm · Travel 78×55 mm · Coaxial coarse and fine focusing knobs · Holder for two slides	✓	✓	✓	✓	OBB-A1330	**150,–**
Condenser	Abbe N.A. 1,25 can be centred (with aperture diaphragm)	✓	✓	○	○	OBB-A1102	**95,–**
	"Swing-out" condenser N.A. 0,9/0,13 can be centred (with aperture diaphragm)	○	○	○	○	OBB-A1104	**240,–**
Darkfield condenser	N.A. 0,85-0,91 (dry, paraboloid)	○	○	○	○	OBB-A1421	**290,–**
	N.A. 1,3 (oil, cardiod)	○	○	○	○	OBB-A1538	**660,–**
Polarising unit	Analyser/Polariser	○	○	○	○	OBB-A1283	**290,–**
Phase contrast units	Quintuple condenser wheel with 10x/20x/40x/100x Infinity PH Plan objectives (complete set)	○	○	✓	✓	OBB-A1237	**1790,–**
	Single unit with ∞ PH-Plan-objective 10x	○	○			OBB-A1214	**340,–**
	Single unit with ∞ PH-Plan-objective 20x	○	○			OBB-A1216	**390,–**
	Single unit with ∞ PH-Plan-objective 40x	○	○			OBB-A1218	**470,–**
	Single unit with ∞ PH-Plan-objective 100x	○	○			OBB-A1212	**570,–**
	Centring eyepiece	○	○	✓	✓	OBB-A1383	**105,–**
Fluorescence unit	100W-HBO-Epi-Flourescence unit, 6-filter-disc (UV/V/B/G) including centering-objective	○	○	○	○	OBB-A1155	**4970,–**
	100 W HBO Epi fluorescent unit, 6-filter-disc (B/G) including centring objective lens	○	○	○	○	OBB-A1153	**3490,–**
	5W LED Epi Flourecence unit, 6-filter-disc (B/G) including centering objective	○	○	○	○	OBB-A1156	**3550,–**
Colour filters for transmitted illumination	Blue	✓	○	✓	✓	OBB-A1170	**25,–**
	Green	○	○	✓	✓	OBB-A1188	**25,–**
	Yellow	○	○	○	○	OBB-A1165	**25,–**
	Grey	○	○	○	○	OBB-A1183	**25,–**
C-Mount	1x	○	○	○	○	OBB-A1514	**130,–**
	0,5x (focus adjustable)	○	○	○	○	OBB-A1515	**200,–**

✓ = included with the delivery ○ = Option

Further accessories and spare parts see *internet*

1



OBN 142



Illumination unit



Sextuple filter wheel

Professional Line

The fluorescence microscope for the professional user

Features

- The fluorescence microscope in the OBN-14 series is based on the usual high quality and versatility of the OBN series. The outstanding, stable design in combination with high-quality optics set the standard in fluorescence microscopy in this class
- OBN 147/148: The powerful, dimmable 20W halogen illumination unit (Philips) and a 100W Epi fluorescence incident illumination unit ensure perfect illumination and stimulation of your fluorescence samples
- As an alternative, with the OBN 141 model we can offer you a fluorescence microscope with a 3 W-LED transmitted illumination unit and 5 W-LED Epi fluorescence incident illumination unit
- This series has a professional Koehler illumination unit with an adjustable field diaphragm as well as a height-adjustable 1,25 Abbe condenser which can be centred and which has an adjustable aperture diaphragm.
- The extremely large mechanical stage with ergonomic, coaxial coarse and fine focusing knob on both sides enables you to adjust and focus your sample rapidly and accurately
- As standard, the filter wheel which has up to 6 fittings is fitted with a B/G fluorescence filter (OBN 141/OBN 147) or B/G/UV/V fluorescence filter (OBN 148)
- A large selection of eyepieces, objectives, colour filters, darkfield condensers as well as a Butterfly Tube, polarising and phase contrast units can easily be integrated thanks to the modular construction system
- The centring objective for adjusting the fluorescence, a protective dust cover, eye cups as well as multi-lingual user instructions are included in the scope of delivery.
- A C-mount adapter is required to connect a camera to the trinocular version. You can select this adapter from the following model outfit list
- Please find detailed information in the following model outfit list

Scope of application

- Haematology, urology, gynaecology, dermatology, pathology, microbiology and parasitology, immunology, sewage treatment plants, oncology, entomology, veterinary practices, water analysis, breweries

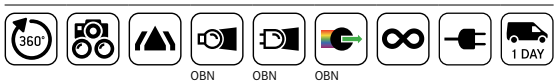
Applications/Samples

- Specially for translucent, thin, low-contrast, challenging samples (e.g. Immunofluorescence, FISH, DAPI staining, etc.)

Technical data

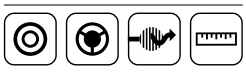
- Infinity optical system
- Quintuple nosepiece
- Siedentopf 30° inclined/360° rotatable
- Diopter adjustment, both-sided
- Overall dimensions W×D×H 510×470×515 mm
- Net weight approx. 13 kg

STANDARD



OBN 147/148 · OBN 141/142 · OBN 141/142 147/148

OPTION



Model	Tube	Eyepiece	Objective quality	Objectives	Illumination	Price excl. of VAT ex works €
KERN						
OBN 141	Trinocular	HWF 10x/Ø 20 mm	Infinity Plan	4x / 10x / 20x / 40x / 100x	LED + 5 W LED Epi Fluorescence (B/G)	**5140,–**
OBN 142	Trinocular	HWF 10x/Ø 20 mm	Infinity Plan	4x / 10x / 20x / 40x / 100x	LED + 5 W LED Epi Fluorescence (UV/V/B/G)	**6520,–**
OBN 147*	Trinocular	HWF 10x/Ø 20 mm	Infinity Plan	4x / 10x / 20x / 40x / 100x	Halogen + 100 W Epi Fluorescence (B/G)	**5120,–**
OBN 148	Trinocular	HWF 10x/Ø 20 mm	Infinity Plan	4x / 10x / 20x / 40x / 100x	Halogen + 100 W Epi Fluorescence (UV/V/B/G)	**6500,–**

! * ONLY WHILE STOCKS LAST

Model outfit		Model KERN				Order number	Price/piece excl. of VAT ex works €
		OBN 141	OBN 142	OBN 147	OBN 148		
Eyepieces (23,2 mm)	HWF 10x/Ø 20 mm	✓✓	✓✓	✓✓	✓✓	OBB-A1404	**105,–**
	WF 10x/Ø 20 mm	○○	○○	○○	○○	OBB-A1351	**95,–**
	WF 16x/Ø 13 mm	○○	○○	○○	○○	OBB-A1354	**50,–**
	WF 10x/Ø 20 mm (reticule 0,1 mm) (adjustable)	○	○	○	○	OBB-A1352	**155,–**
Infinity Plan achromatic objectives	4x/0,11 W.D. 12,1 mm	✓	✓	✓	✓	OBB-A1263	**120,–**
	10x/0,25 W.D. 4,64 mm	✓	✓	✓	✓	OBB-A1243	**215,–**
	20x/0,45 (spring-loaded) W.D. 2,41 mm	✓	✓	✓	✓	OBB-A1250	**290,–**
	40x/0,65 (spring-loaded) W.D. 0,65 mm	✓	✓	✓	✓	OBB-A1257	**315,–**
	100x/1,25 (oil) (spring-loaded) W.D. 0,19 mm	✓	✓	✓	✓	OBB-A1240	**340,–**
	Plan 60x/0,8 (spring-loaded) W.D. 0,33 mm	○	○	○	○	OBB-A1270	**390,–**
Infinity Plan Semi Apochromatic objectives	10x/0,3 W.D. 7,68 mm	○	○	○	○	OBB-A1634	**395,–**
	20x/0,5 W.D. 1,96 mm	○	○	○	○	OBB-A1635	**690,–**
	40x/0,75 (spring-loaded) W.D. 0,78 mm	○	○	○	○	OBB-A1636	**1050,–**
	100x/1,3 (oil) (spring-loaded) W.D. 0,15 mm	○	○	○	○	OBB-A1637	**1370,–**
Trinocular tube	· Butterfly 30° inclined/360° rotatable · Interpupillary distance 50 mm – 75 mm · Light distribution 0:100 · Diopter adjustment both-sided	✓	✓	✓	✓	OBB-A1382	**570,–**
Mechanical stage	· Stage size B×T 175×145 mm · Travel 78×55 mm · Coaxial coarse and fine focusing knobs · Holder for two slides	✓	✓	✓	✓	OBB-A1330	**150,–**
Condenser	Abbe N.A. 1,25 can be centred (with aperture diaphragm)	✓	✓	✓	✓	OBB-A1102	**95,–**
	"Swing-out" condenser N.A. 0,9/0,13 can be centred (with aperture diaphragm)	○	○	○	○	OBB-A1104	**240,–**
Darkfield condenser	N.A. 0,85-0,91 (dry, paraboloid)	○	○	○	○	OBB-A1421	**290,–**
	N.A. 1,3 (oil, cardiod)	○	○	○	○	OBB-A1538	**660,–**
Polarising unit	Analyser/Polariser	○	○	○	○	OBB-A1283	**290,–**
Phase contrast units	Quintuple condenser wheel with 10x/20x/40x/100x Infinity PH Plan objectives (complete set)	○	○	○	○	OBB-A1237	**1790,–**
	Single unit with ∞ PH-Plan-objective 10x	○	○	○	○	OBB-A1214	**340,–**
	Single unit with ∞ PH-Plan-objective 20x	○	○	○	○	OBB-A1216	**390,–**
	Single unit with ∞ PH-Plan-objective 40x	○	○	○	○	OBB-A1218	**470,–**
	Single unit with ∞ PH-Plan-objective 100x	○	○	○	○	OBB-A1212	**570,–**
Fluorescence unit	100W-HBO-Epi-Flourescence unit, 6-filter-disc (UV/V/B/G) including centering-objective				✓	OBB-A1155	**4970,–**
	100 W HBO Epi fluorescent unit, 6-filter-disc (B/G) including centring objective lens			✓		OBB-A1153	**3490,–**
	5W LED Epi Flourecence unit, 6-filter-disc (UV/V/B/G) including centering objective		✓			OBB-A1654	**4970,–**
	5W LED Epi Flourecence unit, 6-filter-disc (B/G) including centering objective	✓				OBB-A1156	**3550,–**
Colour filters for transmitted illumination	Blue	○	○	✓	✓	OBB-A1170	**25,–**
	Green	○	○	○	○	OBB-A1188	**25,–**
	Yellow	○	○	○	○	OBB-A1165	**25,–**
	Grey	○	○	○	○	OBB-A1183	**25,–**
C-Mount	1x	○	○	○	○	OBB-A1514	**130,–**
	0,5x (focus adjustable)	○	○	○	○	OBB-A1515	**200,–**

✓ = included with the delivery ○ = Option

Further accessories and spare parts see *internet*



OCM 161/162



OCM 165-168



N.A. 0,3 Abbe Condenser with phase contrast slide



Coaxial control knobs for x/y can be fitted either left or right

Lab Line

The inverted biological laboratory microscope – also with fluorescence

Features

- The OCM range stands out through its design which is ergonomic, robust and extremely stable
- A powerful and continuously adjustable 30 W halogen illumination or 5 W LED illumination ensures optimum illumination in the bright field of your samples. For the models with an additional fluorescence unit, you can choose either an Osram 100 W-HBO- or an 5 W-LED epi-fluorescence unit
- A special Abbe N.A. 0.3 condenser with aperture diaphragm and large working distance of 72 mm guarantees the very best working practise in the bright field and with fluorescence applications
- As standard, the OCM range is fitted with a trinocular eyepiece tube
- The mechanical stage including specimen holder (ø 110 mm) means that you can work quickly and effectively. Further brackets for petri dishes are included with delivery or available as accessories
- Further options such as, for example, a selection of eyepieces, objectives, specimen holders and other phase contrast units can be integrated as accessories
- A dust cover as well as user instructions are included with the delivery
- A C-mount adapter is required to connect a camera to the trinocular version. You can select this adapter from the following model outfit list.
- Please find detailed information in the following model outfit list

Scope of application

- Research and breeding of cell cultures and tissue cultures

Applications/Samples

- Particularly for viewing samples in culture vessels (flasks, petri dishes, microtitre plates), translucent, thin, low-contrast, challenging samples (e.g. living mammal cells, tissue, microorganisms if necessary, Immunofluorescence, FISH, DAPI staining etc.)

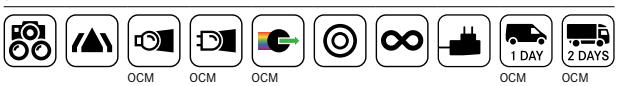
Technical data

- Infinity optics
- Quintuple nosepiece
- Siedentopf 45° inclined
- Diopter adjustment, both-sided

OCM 161/162
- Overall dimensions W×D×H 660×600×335 mm
- Net weight approx. 15 kg

OCM 165-168
- Overall dimensions W×D×H 782×304×530 mm
- Net weight approx. 22 kg

STANDARD



OCM 161/ 165/166 | OCM 162/ 167/168 | OCM 165/166 167/168 | OCM 161/162 | OCM 165-168

Model	Tube	Eyepiece	Objective quality	Objectives	Illumination	Price excl. of VAT ex works €
KERN						
OCM 161	Trinocular	HWF 10x/Ø 22 mm	Infinity Plan	10x / 20x / 40x	30 W Halogen (transmitted)	**3790,–**
OCM 162 NEW	Trinocular	HWF 10x/Ø 22 mm	Infinity Plan	10x / 20x / 40x	5 W LED (transmitted)	**3800,–**
OCM 165	Trinocular	HWF 10x/Ø 22 mm	Infinity Plan	10x / 20x / 40x	30 W Halogen + 100 W Epi Fluorescence (B/G)	**9180,–**
OCM 166	Trinocular	HWF 10x/Ø 22 mm	Infinity Plan	10x / 20x / 40x	30 W Halogen + 100 W Epi Fluorescence (UV/V/B/G)	**10790,–**
OCM 167	Trinocular	HWF 10x/Ø 22 mm	Infinity Plan	10x / 20x / 40x	5 W LED + 5 W LED Epi Fluorescence (B/G)	**9180,–**
OCM 168	Trinocular	HWF 10x/Ø 22 mm	Infinity Plan	10x / 20x / 40x	5 W LED + 5 W LED Epi Fluorescence (UV/V/B/G)	**10790,–**

NEW New model

Model outfit		Model KERN						Order number	Price/piece excl. of VAT ex works €
		OCM 161	OCM 162	OCM 165	OCM 166	OCM 167	OCM 168		
Eyepieces (30 mm)	HWF 10x/Ø 22 mm (adjustable)	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	OBB-A1491	**100,–**
	HWF 10x/Ø 22 mm (reticule 0,1 mm) (adjustable)	○	○	○	○	○	○	OBB-A1523	**155,–**
Infinity Plan achromatic Fluor objectives	4x/0,11 W.D. 12,1 mm	○	○	○	○	○	○	OBB-A1600	**140,–**
	10x/0,25 W.D. 10,3 mm	✓	✓	✓	✓	✓	✓	OBB-A1601	**210,–**
	20x/0,45 W.D. 5,8 mm	✓	✓	✓	✓	✓	✓	OBB-A1602	**290,–**
	40x/0,65 W.D. 5,1 mm	✓	✓	✓	✓	✓	✓	OBB-A1603	**360,–**
Trinocular tube	· 45° inclined · Interpupillary distance 48 mm – 76 mm · Light distribution 100:0 · Diopter adjustment both-sided	✓	✓	✓	✓	✓	✓		
Mechanical stage	· Stage size B×T 210×241 mm · Travel 128×80 mm · Coaxial coarse and fine focusing knobs · The x/y control knobs can be fitted either left or right · Suitable for attaching a 96-hole microtiter plate	✓	✓	✓	✓	✓	✓		
	Specimen holder (Ø 110)	✓	✓	✓	✓	✓	✓	OBB-A1503	**35,–**
	Specimen holder for 35 mm petri dish	○	○	○	○	○	○	OBB-A1507	**65,–**
	Specimen holder for 54 mm petri dish	✓	✓	✓	✓	✓	✓	OBB-A1506	**65,–**
	Specimen holder for 65 mm petri dish	○	○	○	○	○	○	OBB-A1505	**65,–**
Condenser	Abbe N.A. 0,3 (with aperture diaphragm), LWD 72 mm	✓	✓	✓	✓	✓	✓		
Phase contrast units	Phase contrast slide 4x	○		○	○	○	○	OBB-A1608	**95,–**
	Phase contrast slide 10x	✓	✓	✓	✓	✓	✓	OBB-A1609	**95,–**
	Phase contrast slide 20x/40x	✓	✓	✓	✓	✓	✓	OBB-A1610	**95,–**
	Infinity PH-Plan Fluor objective 4x	○	○	○	○	○	○	OBB-A1604	**680,–**
	Infinity PH-Plan Fluor objective 10x	○	○	○	○	○	○	OBB-A1605	**260,–**
	Infinity PH-Plan Fluor objective 20x	✓	✓	✓	✓	✓	✓	OBB-A1606	**360,–**
	Infinity PH-Plan Fluor objective 40x	○	○	○	○	○	○	OBB-A1607	**410,–**
	Centring eyepiece	✓	✓	✓	✓	✓	✓	OBB-A1544	**120,–**
Colour filters for transmitted illumination	Blue	✓	✓	✓	✓	✓	✓	OBB-A1510	**25,–**
	Green	✓	✓	✓	✓	✓	✓	OBB-A1511	**25,–**
	Yellow	○	○	○	○	○	○	OBB-A1512	**30,–**
	Grey	○	○	○	○	○	○	OBB-A1513	**25,–**
C-Mount	0,5x (focus adjustable)	○	○	○	○	○	○	OBB-A1515	**200,–**
	1x	○	○	○	○	○	○	OBB-A1514	**130,–**

✓ = included with the delivery ○ = Option

Further accessories and spare parts see *internet*

1



Cleaning Sets for Microscopes

Features

- This economical and fully equipped 7-piece cleaning set contains everything you need for the very best care of your microscope.
- A silicon hand blower, dust brush, 60 ml of cleaning liquid, lint-free duster, optical cleaning cloths and cleaning swabs. You get all that in a high-quality KERN storage bag which you can also easily fix onto your belt.
- You can use this set not only to gently clean your microscope, but also for example your camera, binoculars or all other optical surfaces.
- The cleaning liquid is also available separately

STANDARD

1 DAY

Model	Description	Price excl. of VAT ex works €
KERN		
OCS 901	7-piece cleaning sets for microscopes und other optical instruments	**35,–**
OCS-A1101	Cleaning liquid	**19,–**

2

METALLURGICAL MICROSCOPES







Illumination unit



Stage and objectives

LAB LINE MET

The metallurgical reflected light microscope for material testing and surface testing, as well as quality assurance in industry

Features

- The KERN OKM is an excellent metallurgical reflected light microscope, e.g. for surface quality testing of raw materials and finished products in industry
- The strong, continuously dimmable 5 W-LED iillumination unit ensures excellent, high-contrast images
- A large mechanical stage for reflected illumination applications is configured as standard. The coarse and fine focusing knob on both sides guarantees optimal adjustment and focusing of your sample
- A simple polarising unit (analyser and polariser) is included with delivery
- A large selection of different eyepieces and objectives is also available
- A protective dust cover, eye cups, as well as multi-lingual user instructions are included in the scope of delivery
- A C-mount adapter is required to connect a camera to the trinocular version. You can select this adapter from the following model outfit list.
- Please find detailed information in the following model outfit list

Scope of application

- Metallurgy, material testing, quality assurance

Applications/Samples

- Opaque and thick samples, workpieces (surfaces, fold lines, coatings)

Technical data

- Infinity optical system
- Siedentopf 30° inclined/360° rotatable
- 4-fold lens revolving unit
- Diopter adjustment, one-sided
- Overall dimensions W×D×H 440×200×460 mm
- Net weight approx. 8 kg

STANDARD



Model	Tube	Eyepiece	Objective quality	Objectives	Illumination	Price excl. of VAT ex works €
KERN						
OKM 173	Trinocular	HWF 10x/Ø 20 mm	Infinity Plan	5x / 10x / 20x / 50x	5 W LED (incident)	**2220,–**

Model outfit		Model KERN	Order number	Price/piece excl. of VAT ex works €
		OKM 173		
Eyepieces (23,2 mm)	HWF 10x/Ø 18 mm	✓	OBB-A1403	**50,–**
	HWF 10x/Ø 18 mm (reticule 0,1 mm) (non-adjustable)	✓	OBB-A1349	**65,–**
	WF 5x/Ø 20 mm	○	OBB-A1355	**60,–**
	WF 12,5x/Ø 14 mm	○	OBB-A1353	**85,–**
	WF 16x/Ø 13 mm	○	OBB-A1354	**50,–**
Infinity Plan achromatic objectives	5x/0,1 W.D. 12,1 mm	○	OBB-A1268	**115,–**
	10x/0,25 W.D. 4,64 mm	○	OBB-A1244	**215,–**
	20x/0,4 (spring-loaded) W.D. 2,14 mm	○	OBB-A1251	**290,–**
	40x/0,66 (spring-loaded) W.D. 0,45 mm	○	OBB-A1258	**315,–**
Infinity Plan achromatic objectives for long working distance	5x/0,15 W.D. 24,23 mm	✓	OBB-A1525	**135,–**
	10x/0,25 W.D. 18,48 mm	✓	OBB-A1526	**200,–**
	20x/0,4 W.D. 8,35 mm	✓	OBB-A1527	**265,–**
	40x/0,65 W.D. 3,9 mm	○	OBB-A1259	**440,–**
	50x/0,75 (spring-loaded) W.D. 1,95 mm	✓	OBB-A1528	**350,–**
	80x/0,8 (spring-loaded) W.D. 0,85 mm	○	OBB-A1271	**550,–**
Trinocular tube	· Siedentopf 30° inclined/360° rotatable · Interpupillary distance 50 mm – 75 mm · Light distribution 20:80 · Diopter adjustment one-sided	✓	OBB-A1580	**400,–**
Mechanical stage	· Stage size B×T 200×140 mm · Travel 76×52 mm · Coaxial coarse and fine focusing knobs	✓	OBB-A1327	**165,–**
Reflected illumination unit	5-filter unit (Blue, Green, Yellow, Grey, Empty)	✓		
Polarising unit	Incl. analyser and polariser	✓		
C-Mount	1x	○	OBB-A1514	**130,–**
	0,5x (focus adjustable)	○	OBB-A1515	**200,–**

✓ = included with the delivery ○ = Option

Further accessories and spare parts see *internet*





Stage and objectives



Illumination unit

PROFESSIONAL LINE MET

The fully-equipped reflected and transmitted light microscope for numerous applications in metallurgy

Features

- This device is a professional, versatile, metallurgical microscope, which is used in testing metals and analysing surfaces
- The KERN OKO 178 is a combi variant of LED incident illumination and LED transmitted illumination. A height-adjustable 1.25 Abbe condenser which can be centred as well as a field diaphragm for complete professional Köhler illumination are part of the standard version
- An open, mechanical angle table is integrated as standard
- A simple polarising unit (analyser and polariser) is included with delivery
- A large selection of accessories, such as, for example, eyepieces and further objectives are available for longer working distances
- A protective dust cover, eye cups, as well as multi-lingual user instructions are included in the scope of delivery
- A C-mount adapter is required to connect a camera to the trinocular version. You can select this adapter from the following model outfit list.
- Please find detailed information in the following model outfit list

Scope of application

- Metallurgy, material testing, quality control

Applications/Samples

- Opaque and thick samples, workpieces (surfaces, fold lines, coatings)

Technical data

- Infinity optical system
- Siedentopf 30° inclined/360° rotatable
- Quintuple nosepiece
- Diopter adjustment, both-sided
- Overall dimensions W×D×H 550×200×460 mm
- Net weight approx. 12 kg

STANDARD



Model	Tube	Eyepiece	Objective quality	Objectives	Illumination	Price excl. of VAT ex works €
KERN						
OKO 178	Trinocular	WF 10x/Ø 22 mm	Infinity semi apochromatic	5x / 10x / 20x / 50x	5 W LED (transmitted + incident)	**3350,–**

Model outfit		Model KERN OKO 178	Order number	Price/piece excl. of VAT ex works €
Eyepieces (30 mm)	HWF 10x/Ø 22 mm (adjustable)	✓	OBB-A1491	**100,–**
	HWF 10x/Ø 22 mm (reticule 0,1 mm) (adjustable)	✓	OBB-A1523	**155,–**
Infinity Plan Semi Apochromatic objectives for long working distance	5x/0,15 W.D. 15 mm	✓	OBB-A1619	**180,–**
	10x/0,3 W.D. 20 mm	✓	OBB-A1620	**275,–**
	20x/0,4 W.D. 15 mm	✓	OBB-A1621	**335,–**
	50x/0,75 W.D. 4,25 mm	✓	OBB-A1641	**480,–**
	100x/0,85 (dry) (spring-loaded) W.D. 3 mm	○	OBB-A1623	**1260,–**
Infinity Plan objectives for long working distance	80x/0,8 (spring-loaded) W.D. 0,85 mm	○	OBB-A1530	**520,–**
Trinocular tube	· Siedentopf 30° inclined/360° rotatable · Interpupillary distance 48 mm – 76 mm · Light distribution 0:100	✓	OBB-A1599	**670,–**
Mechanical stage	· Stage size B×T 182×140 mm · Travel 77×52 mm · Coaxial coarse and fine focusing knobs	✓		
Condenser	Abbe N.A. 1,25 can be centred (aperture diaphragm)	✓	OBB-A1380	**110,–**
Reflected illumination unit	Incl. blue filter slider	✓		
Polarising unit	Incl. analyser and polariser for reflected and transmitted light	✓		
Colour filters for transmitted illumination	Blue	✓	OBB-A1170	**25,–**
	Green	○	OBB-A1188	**25,–**
	Yellow	○	OBB-A1165	**25,–**
	Grey	○	OBB-A1183	**25,–**
C-Mount	1x	○	OBB-A1514	**130,–**
	0,75x	○	OBB-A1590	**200,–**
	0,5x (focus adjustable)	○	OBB-A1515	**200,–**

✓ = included with the delivery ○ = Option

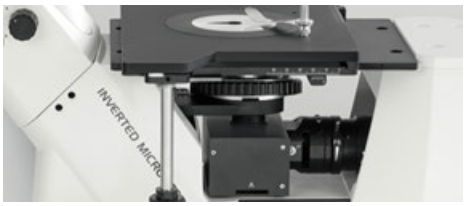
Further accessories and spare parts see *internet*



OLM 171



OLM 170



Specimen stage and illumination unit



Analyser/Polariser

LAB LINE MET

The inverted metallurgical microscope for professional applications

Features

- The KERN OLM range is part of the range of inverted microscopes and stands out through its design which is ergonomic, robust and extremely stable. This range, with its large working distance is, for example, particularly suitable for surface quality testing of raw materials and finished products in industry
- Depending on the application, you can choose from models with a powerful, continuously dimmable 5W LED or a 50W halogen incident light illumination, which ensure optimum illumination of the materials to be tested
- As standard, the OLM range is fitted with a trinocular eyepiece tube
- A simple polarising unit (analyser and polariser) is included with delivery
- A large mechanical stage is included with delivery as standard. The coarse and fine focusing knob on both sides guarantees optimal adjustment and focusing.
- The compact design of the OLM 170 means that handling is even easier and more flexible for the user, so this model can also be considered for mobile applications. In the same way, the pre-installed C-Mount Adapter (on the back of the microscope) also makes operation easier, as connecting the camera is even easier
- Further options such as, for example, a large selection of objectives can be integrated as accessories
- A dust cover as well as user instructions are included with the delivery
- Please find detailed information in the following model outfit list

Scope of application

- Metallurgy, material testing, Quality assurance

Applications/Samples

- Opaque and thick samples, workpieces (surfaces, fold lines, coatings)

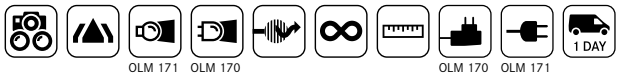
Technical data

- Infinity optical system

OLM 170
- 4-fold lens revolving unit
- Butterfly 45° inclined
- Diopter adjustment, one-sided
- Overall dimensions W×D×H 470×240×330 mm
- Net weight approx. 7 kg

OLM 171
- Quintuple nosepiece
- Siedentopf 30° inclined
- Diopter adjustment, both-sided
- Overall dimensions W×D×H 747×271×379 mm
- Net weight approx. 13 kg

STANDARD



Model	Tube	Eyepiece	Objective quality	Objectives	Illumination	Price excl. of VAT ex works €
KERN						
OLM 170	Trinocular	HWF 10x/Ø 20 mm	Infinity Plan	5x / 10x / 20x / 50x	5 W LED (incident)	**3000,–**
OLM 171	Trinocular	HWF 10x/Ø 22 mm	Semi Apochromatic	5x / 10x / 20x / 50x	50 W Halogen (incident)	**3950,–**

Model outfit		Model KERN		Order number	Price/piece excl. of VAT ex works €
		OLM 170	OLM 171		
Eyepieces (23,2 mm)	HWF 10x/Ø 20 mm	✓		OBB-A1404	**105,–**
	WF 10x/Ø 20 mm (reticule 0,1 mm) (adjustable)	✓		OBB-A1352	**155,–**
Eyepieces (30 mm)	HWF 10x/Ø 22 mm (adjustable)		✓	OBB-A1491	**100,–**
	HWF 10x/Ø 22 mm (reticule 0,1 mm) (adjustable)		✓	OBB-A1523	**155,–**
Infinity Plan achromatic objectives for long working distance	5x/0,15 W.D. 24,23 mm	✓	○	OBB-A1525	**135,–**
	10x/0,25 W.D. 18,48 mm	✓	○	OBB-A1526	**200,–**
	20x/0,4 W.D. 8,35 mm	✓	○	OBB-A1527	**265,–**
	50x/0,75 (spring-loaded) W.D. 1,95 mm	✓	○	OBB-A1528	**350,–**
	80x/0,8 (spring-loaded) W.D. 0,85 mm	○	○	OBB-A1530	**520,–**
Infinity Plan Semi Apochromatic objectives for long working distance	5x/0,15 W.D. 15 mm		✓	OBB-A1619	**180,–**
	10x/0,3 W.D. 20 mm		✓	OBB-A1620	**275,–**
	20x/0,4 W.D. 15 mm	○	✓	OBB-A1621	**335,–**
	50x/0,55 W.D. 10 mm		✓	OBB-A1622	**480,–**
	100x/0,85 (dry) (spring-loaded) W.D. 3 mm		○	OBB-A1623	**1260,–**
Trinocular tube	· Butterfly 30° inclined · Interpupillary distance 48 mm – 76 mm · Light distribution 20:80 · Diopter adjustment: One-sided	✓			
	· Siedentopf 30° inclined · Interpupillary distance 48 mm – 76 mm · Light distribution 100:0 · Diopter adjustment: Both-sided		✓		
Mechanical stage	· Stage size B×T 155×180 mm · Travel 75×40 mm · Coaxial coarse and fine focusing knobs	✓			
	· Stage size B×T 210×180 mm · Travel 50×50 mm · Coaxial coarse and fine focusing knobs		✓		
Reflected illumination unit	Incl. blue filter slider	✓	✓		
Polarising unit	Incl. analyser and polariser	✓	✓		
Colour filters	Blue		✓	OBB-A1510	**25,–**
	Green		○	OBB-A1511	**25,–**
	Yellow		○	OBB-A1512	**30,–**
	Grey	✓	○	OBB-A1513	**25,–**
C-Mount	0,5x (built-in)	✓			
	1x		○	OBB-A1514	**130,–**
	0,5x (focus adjustable)		○	OBB-A1515	**200,–**

✓ = included with the delivery ○ = Option

Further accessories and spare parts see *internet*

3

POLARISING MICROSCOPES







Bertrand lens, λ Slip, 360° rotatable analyser (removable)



Center-adjustable and turnable polarisation stage



"Swing-Out" condenser

PROFESSIONAL LINE POL

The flexible and powerful polarising microscope for all professional applications with reflected and transmitted light

Features

- This device is a professional, fully-equipped polarising microscope, which uses the polarisation of light to analyse minerals, crystals and isotropic materials
- The KERN OKO 185 is a combi variant of LED incident illumination and LED transmitted illumination. A height-adjustable 0.9/0.13 Swing-out Abbe condenser which can be centred for complete Köhler illumination are part of the standard version
- A 360° revolving stage with 1° division, 6' fine division and locking function is integrated into all series as standard.
- A large selection of accessories such as, for example, a mechanical stage attachment as well as further objectives for a long working distance and filter units are also available
- A protective dust cover, eye cups, as well as multi-lingual user instructions are included in the scope of delivery
- A C-mount adapter is required to connect a camera to the trinocular version. You can select this adapter from the following model outfit list.
- Please find detailed information in the following model outfit list

Scope of application

- Mineralogy, texture observations, material testing, observation of crystals

Applications/Samples

- More complex samples with polarising properties

Technical data

- Infinity optical system
- Quintuple nosepiece
- Siedentopf 30° inclined
- Diopter adjustment, both-sided
- Overall dimensions W×D×H 500×200×500 mm
- Net weight approx. 13 kg

STANDARD



Model	Tube	Eyepiece	Objective quality	Objectives	Illumination	Price excl. of VAT ex works €
KERN						
OPO 185	Trinocular	HWF 10x/Ø 20 mm	Infinity Plan	4x / 10x / 20x / 40x / 50x	5 W LED (transmitted + incident)	**5700,–**

Model outfit		Model KERN OPO 185	Order number	Price/piece excl. of VAT ex works €
Eyepieces (30 mm)	HWF 10x/Ø 20 mm	✓	OBB-A1591	**95,–**
	HWF 10x/Ø 20 mm (reticule 0,1 mm) (adjustable)	✓	OBB-A1592	**130,–**
Non-stress Infinity Plan objectives (transmitted)	4x/0,11 W.D. 12,1 mm	✓	OBB-A1294	**115,–**
	10x/0,25 W.D. 4,64 mm	✓	OBB-A1289	**220,–**
	20x/0,45 (spring-loaded) W.D. 2,41 mm	✓	OBB-A1290	**290,–**
	40x/0,66 (spring-loaded) W.D. 0,65 mm	✓	OBB-A1292	**335,–**
Non-stress Infinity Plan objectives (incident) for long working distance	5x/0,13 W.D. 16,04 mm	○	OBB-A1593	**110,–**
	10x/0,25 W.D. 18,48 mm	○	OBB-A1594	**220,–**
	20x/0,4 W.D. 8,35 mm	○	OBB-A1291	**375,–**
	Semi apochromatic 50x/0,75 W.D. 4,25 mm	✓	OBB-A1642	**480,–**
	E-Plan 100x/0,85 (dry) (spring-loaded) W.D. 3 mm	○	OBB-A1595	**1260,–**
Trinocular tube	· 30° inclined · Interpupillary distance 48 mm – 76 mm · Light distribution 0:100	✓		
Bertrand lens	Built-in, can be centred	✓	OBB-A1121	**330,–**
λ + ¼ λ Slip	λ Slip and 1/4 λ Slip (combination)	✓	OBB-A1316	**155,–**
Quartz wedge	I - IV Class	✓	OBB-A1321	**260,–**
Revolving round stage	360° revolving, can be centred, 1° division, 6' fine division	✓	OBB-A1332	**340,–**
Polarising attached mechanical stage	Mechanical stage extension for the polarisation bench	○	OBB-A1337	**295,–**
Swing-out condenser	Achromatic condenser, centrable (with aperture diaphragm)	✓	OBB-A1107	**255,–**
Polarising unit	Incident light: analyser with scale, 360° rotatable, lockable, polariser	✓	OBB-A1597	**3795,–**
	Transmitted light: Incl. analyser and polariser, lockable, 360° rotatable	✓	OBB-A1284	**275,–**
Colour filters for transmitted illumination	Blue	✓	OBB-A1170	**25,–**
	Green	○	OBB-A1188	**25,–**
	Yellow	○	OBB-A1165	**25,–**
	Grey	○	OBB-A1183	**25,–**
C-Mount	1x	○	OBB-A1514	**130,–**
	0,75x	○	OBB-A1590	**200,–**
	0,5x (focus adjustable)	○	OBB-A1515	**200,–**

✓ = included with the delivery ○ = Option

Further accessories and spare parts see *internet*

4

STEREO MICROSCOPES

Stereo, Stereo-Zoom, Coaxial and Gem Microscopes







Side view

Educational Line

Stereo microscope with robust, ergonomic design – ideal for workshops, schools and training

Features

- With its integrated handle as well as its stable mechanical stand, the KERN OSE 421 has been specially developed for schools and workshops
- The incident and transmitted illumination unit included as standard can be optionally enabled for the very best illumination of your sample
- Mobile use is also no problem due to the integrated battery compartment
- Despite its low price it has very good optical characteristics, which enable you to have sharp images over a large field of view
- A turnable objective with predefined magnifications is available to make your working procedures quicker and more efficient.
- The eyepieces are fixed in the eyepiece tube, to stop them getting damaged or lost
- A special feature of this adaptable and yet robust microscope series is the stable mechanism of the microscope stand which can be adjusted precisely. It will also impress you with its functionality and ergonomic design.
- A large selection of eyepieces as well as various additional external illumination units are available as accessories
- Please find detailed information in the following model outfit list

Scope of application

- Training, in vitro fertilisation, detection of parasites, zoology and botany, tissue preparation, section, quality control

Applications/Samples

- Samples with focus on three-dimesnional impression (depth, thickness), e.g. insects, seeds, circuit boards, components

Technical data

- Optical system: Greenough optics
- Brightness adjustable
- Tube 45° inclined
- Interpupillary distance: 55 mm – 75 mm
- Diopter adjustment, both-sided
- Overall dimensions W×D×H 200×180×300 mm
- Net weight approx. 2,2 kg

STANDARD



Model	Tube	Eyepiece	Field of view	Objective	Stand	Illumination	Price excl. of VAT ex works €
KERN							
OSE 421	Binocular	WF 10x/Ø 20 mm	20 mm	2x / 4x	mechanical	1 W LED (incident), 1 W LED (transmitted)	**290,–**

Eyepiece	Specifications – Objectives		
	Magnification	**2x**	**4x**
WF 5x	Total magnification	10x	20x
	Field of view mm	Ø 10	Ø 5
WF 10x	Total magnification	20x	40x
	Field of view mm	Ø 10	Ø 5
WF 15x	Total magnification	30x	60x
	Field of view mm	Ø 7,5	Ø 3,7
WF 20x	Total magnification	40x	80x
	Field of view mm	Ø 6,5	Ø 3,2
Working distance		57 mm	57 mm

Model outfit		Model KERN	Order number	Price/piece excl. of VAT ex works €
		OSE 421		
Eyepieces (30,5 mm)	WF 5x/Ø 16,2 mm	○○	OZB-A4101	**40,–**
	WF 10x/Ø 20 mm	✓✓	OZB-A4102	**35,–**
	WF 15x/Ø 15 mm	○○	OZB-A4103	**35,–**
	WF 20x/Ø 10 mm	○○	OZB-A4104	**40,–**
	WF 10x/Ø 20 mm (with scale 0,1 mm)	○	OZB-A4151	**50,–**
Stand	Mechanical, with 1 W LED illumination (transmitted + incident)	✓		
Stand insert	Frostet glass/Ø 59,5 mm	✓	OZB-A4815	**25,–**
	Black-white/Ø 59,5 mm	✓	OZB-A4816	**25,–**

✓ = included with the delivery ○ = Option

Further accessories and spare parts see *internet*





Stage plate black



Stage plate white

Educational Line

The practical and robust product for schools, training centres, the workshop and laboratory

Features

- With its integrated handle as well as its stable mechanical stand, the KERN OSF-43 has been specially developed for schools and workshops
- The LED incident and transmitted illumination included as standard guarantees the very best, continuously dimmable illumination for your sample
- As well as very good optical characteristics, its ergonomic working surface means that it offers the highest level of convenience in this class.
- A turnable objective with predefined magnifications is available to make your working procedures quicker and more efficient.
- The eyepieces are fixed in the eyepiece tube, to stop them getting damaged or lost
- The ergonomic shape and the stable mechanism which can be adjusted extremely accurately offer a high level of functionality and enable you to work quickly and efficiently with very little effort.
- A large selection of eyepieces as well as various additional external illumination units are available as accessories
- A protective dust cover, eye cups, as well as multi-lingual user instructions are included in the scope of delivery
- Please find detailed information in the following model outfit list

Scope of application

- Training, in vitro fertilisation, detection of parasites, zoology and botany, tissue preparation, section, quality control

Applications/Samples

- Samples with focus on three-dimesnional impression (depth, thickness), e.g. insects, seeds, circuit boards, components

Technical data

- Optical system: Greenough optics
- Brightness adjustable (separate)
- Tube 45° inclined
- Interpupillary distance: 55 mm – 75 mm
- Diopter adjustment, one-sided
- Overall dimensions W×D×H 230×180×275 mm
- Net weight approx. 2,4 kg

STANDARD



Model	Tube	Eyepiece	Field of view	Objective	Stand	Illumination	Price excl. of VAT ex works €
KERN							
OSF 438	Binocular	WF 10x/Ø 20 mm	20 mm	1x / 2x / 3x	mechanical	1 W LED (incident), 0,35 W LED (transmitted)	**360,–**
OSF 439	Binocular	WF 10x/Ø 20 mm	20 mm	1x / 2x / 4x	mechanical	1 W LED (incident), 0,35 W LED (transmitted)	**360,–**

Eyepiece	Specifications – Objectives				
	Magnification	**1x**	**2x**	**3x**	**4x**
WF 5x	Total magnification	5x	10x	15x	20x
	Field of view mm	Ø 20	Ø 10	Ø 6,7	Ø 5
WF 10x	Total magnification	10x	20x	30x	40x
	Field of view mm	Ø 20	Ø 10	Ø 6,7	Ø 5
WF 15x	Total magnification	15x	30x	45x	60x
	Field of view mm	Ø 15	Ø 7,5	Ø 5	Ø 3,7
WF 20x	Total magnification	20x	40x	60x	80x
	Field of view mm	Ø 10	Ø 6,5	Ø 4,3	Ø 3,2
Working distance		57 mm	57 mm	57 mm	57 mm

Model outfit		Model KERN		Order number	Price/piece excl. of VAT ex works €
		OSF 438	**OSF 439**		
Eyepieces (30,5 mm)	WF 5x/Ø 16,2 mm	○○	○○	OZB-A4101	**40,–**
	WF 10x/Ø 20 mm	✓✓	✓✓	OZB-A4102	**35,–**
	WF 15x/Ø 15 mm	○○	○○	OZB-A4103	**35,–**
	WF 20x/Ø 10 mm	○○	○○	OZB-A4104	**40,–**
	WF 10x/Ø 20 mm (with scale 0,1 mm)	○	○	OZB-A4151	**50,–**
Stand	Mechanical, incl. handle, with LED illumination (0,35 W transmitted + 1 W incident)	✓	✓		
Stand insert	Frostet glass/Ø 59,5 mm	✓	✓	OZB-A4815	**25,–**
	Black-white/Ø 59,5 mm	✓	✓	OZB-A4816	**25,–**

✓ = included with the delivery ○ = Option

Further accessories and spare parts see *internet*



Lab Line

The affordable and flexible stereo zoom microscope for laboratories, inspection authorities and quality controls

Features

- The KERN OZL-44 is a stereo zoom microscope, which will impress you with the easy handling, flexibility as well as the stability and economical price
- The LED incident and transmitted illumination included as standard guarantees the very best illumination of your sample
- As well as excellent optical characteristics and their large working surface, these models offer the highest level of comfort in this class – ideal for training companies, workshops as well as assembly and repair workstations, e.g. in the electronics industry.
- As standard this microscope offers you continuous total magnification of 7,5x – 36x
- The OZL-44 series is available as a binocular version. The eyepieces are fixed in the eyepiece tube, to stop them getting damaged or lost.
- The pillar stand offers you the highest level of flexibility and the freedom to remove the microscope head and to integrate it into other modular systems, for example into a universal stand
- A large selection of eyepieces, external illumination units as well as auxiliary objectives are available as accessories
- A protective dust cover, eye cups, as well as multi-lingual user instructions are included in the scope of delivery
- Please find detailed information in the following model outfit list

Scope of application

- In vitro fertilisation, detection of parasites, zoology and botany, tissue preparation, section, quality control

Applications/Samples

- Samples with focus on three-dimesnional impression (depth, thickness), e.g. insects, seeds, circuit boards, components

Technical data

- Optical system: Greenough optics
- Brightness adjustable (separate)
- Tube 45° inclined
- Magnification ratio 4,8:1
- Interpupillary distance: 55 mm – 75 mm
- Diopter adjustment, both-sided
- Overall dimensions W×D×H 230×235×360 mm
- Net weight approx. 4,4 kg

STANDARD



Model	Tube	Eyepiece	Field of view	Objective Zoom	Stand	Illumination	Price excl. of VAT ex works €
KERN							
OZL 445	Binocular	WF 10x/Ø 20 mm	Ø 28 – 6 mm	0,75x - 3,6x	pillar	1 W LED (incident), 0,35 W LED (transmitted)	**550,–**

Eyepiece	Specifications – Objectives					
	Magnification	**Standard**	**Auxiliary objectives**			
		1,0x	**0,5x**	**0,75x**	**1,5x**	**2,0x**
WF 5x	Total magnification	3,75x – 18x	1,875x – 9x	2,81x – 13,5x	5,625x – 27x	7,5x – 36x
	Field of view mm	Ø 26 – 6	Ø 60 – 13	Ø 32 – 7	Ø 16 – 4	Ø 12,5 – 3
WF 10x	Total magnification	7,5x – 36x	3,75x – 18x	5,625x – 27x	11,25x – 54x	15x – 72x
	Field of view mm	Ø 26,7 – 5,6	Ø 53,3 – 11,1	Ø 35,5 – 7,4	Ø 17,8 – 3,7	Ø 13,3 – 2,8
WF 15x	Total magnification	11,25x – 54x	5,625x – 27x	8,44x – 40,5x	16,875x – 81x	22,5x – 108x
	Field of view mm	Ø 19 – 4,5	Ø 43 – 9,5	Ø 24 – 5,5	Ø 12 – 3	Ø 9,5 – 2
WF 20x	Total magnification	15x – 72x	7,5x – 36x	56,25x – 54x	22,5x – 108x	30x – 144x
	Field of view mm	Ø 12,5 – 3	Ø 28 – 6	Ø 16 – 3,5	Ø 8 – 2	Ø 6 – 1,5
Working distance		86 mm	178 mm	96 mm	42,5 mm	25,5 mm
Maximum sample height		100 mm	10 mm	60 mm	120 mm	135 mm

Model outfit		Model KERN	Order number	Price/piece excl. of VAT ex works €
		OZL 445		
Eyepieces (30,5 mm)	WF 5x/Ø 16,2 mm	○○	OZB-A4101	**40,–**
	WF 10x/Ø 20 mm	✓✓	OZB-A4102	**35,–**
	WF 15x/Ø 15 mm	○○	OZB-A4103	**35,–**
	WF 20x/Ø 10 mm	○○	OZB-A4104	**40,–**
	WF 10x/Ø 20 mm (with scale 0,1 mm)	○	OZB-A4151	**50,–**
Auxiliary objectives	0,5x	○	OZB-A4201	**85,–**
	0,75x	○	OZB-A4202	**85,–**
	1,5x	○	OZB-A4204	**85,–**
	2x	○	OZB-A4205	**90,–**
	Soldering protection lens	○	OZB-A4251	**25,–**
Stand	Pillar, with LED illumination (0,35 W transmitted + 1 W incident)	✓		
Stand insert	Frostet glass/Ø 95 mm	✓	OZB-A4805	**25,–**
	Black-white/Ø 95 mm	✓	OZB-A4806	**25,–**

✓ = included with the delivery ○ = Option

Further accessories and spare parts see *internet*



OZL 464
with standard stand



OZL 465
with ring illuminatipn



OZL 467
with handle

Lab Line

The flexible, affordable all-rounder with zoom function for schools, training companies, inspection authorities and laboratories

Features

- The products in the KERN OZL-46 series are stereo zoom microscopes, which will impress you with their easy handling, flexibility as well as their stability and economical price.
- The LED incident and transmitted illumination included as standard guarantees the very best illumination of your sample
- The highlight of the KERN OZL 465/OZL 466 is the strong, continuoulsy dimmable, integrated LED ring illumination in the objective housing,which ensures uniform, shadow-free illumination. An LED transmitted light variant is also included
- As well as excellent optical characteristics and their large working surface, these models offer the highest level of comfort in this class – ideal for training companies, workshops as well as assembly and repair workstations, e.g. in the electronics industry.
- As standard this microscope offers you continuous total magnification of 7x – 45x
- The KERN OZL-46 series is available as a binocular or trinocular version.
- The pillar stand offers you the highest level of flexibility and the freedom to remove the microscope head and to integrate it into other modular systems, for example into a universal stand
- With its integrated handle as well as its stable mechanical stand, the KERN OZL 467/OZL 468 has been specially developed for schools and workshops
- A large selection of eyepieces, external illumination units as well as auxiliary objectives are available as accessories
- A protective dust cover, eye cups, as well as multi-lingual user instructions are included in the scope of delivery
- A C-mount adapter is required to connect a camera to the trinocular version. You can select this adapter from the following model outfit list.
- Please find detailed information in the following model outfit list

Scope of application

- In vitro fertilisation, detection of parasites, zoology and botany, tissue preparation, section, quality control

Applications/Samples

- Samples with focus on three-dimesnional impression (depth, thickness), e.g. insects, seeds, circuit boards, components

Technical data

- Optical system: Greenough optics
- Brightness adjustable (separate)
- Tube 45° inclined
- Magnification ratio 6,4:1
- OZL 464/466/468: Beam path distribution: 0:100
- Interpupillary distance: 55 mm – 75 mm
- Diopter adjustment, both-sided
- Overall dimensions W×D×H 300×240×420 mm
- Net weight approx. 4,2 kg

STANDARD



Model	Tube	Eyepiece	Field of view	Objective Zoom	Stand	Illumination	Price excl. of VAT ex works €
KERN							
OZL 463	Binocular	HWF 10x/Ø 20 mm	Ø 28,6 – 4,4 mm	0,7x - 4,5x	pillar	3 W LED (incident + transmitted)	**600,–**
OZL 464	Trinocular	HWF 10x/Ø 20 mm	Ø 28,6 – 4,4 mm	0,7x - 4,5x	pillar	3 W LED (incident + transmitted)	**670,–**
OZL 465	Binocular	HWF 10x/Ø 20 mm	Ø 28,6 – 4,4 mm	0,7x - 4,5x	pillar	3 W LED (incident + transmitted)	**640,–**
OZL 466	Trinocular	HWF 10x/Ø 20 mm	Ø 28,6 – 4,4 mm	0,7x - 4,5x	pillar	3 W LED (incident + transmitted)	**690,–**
OZL 467	Binocular	HWF 10x/Ø 20 mm	Ø 28,6 – 4,4 mm	0,7x - 4,5x	mechanical	3 W LED (incident + transmitted)	**600,–**
OZL 468	Trinocular	HWF 10x/Ø 20 mm	Ø 28,6 – 4,4 mm	0,7x - 4,5x	mechanical	3 W LED (incident + transmitted)	**660,–**

Eyepiece		Specifications – Objectives				
	Magnification	**Standard**	**Auxiliary objectives**			
		1,0x	**0,5x**	**0,75x**	**1,5x**	**2,0x**
HSWF 10x	Total magnification	7x – 45x	3,5x – 22,5x	5,3x – 33,8x	10,5x – 67,5x	14x – 90x
	Field of view mm	Ø 28,6 – 4,4	Ø 57,1 – 8,9	Ø 38,1 – 5,9	Ø 19 – 3	Ø 14,3 – 2,2
HWF 15x	Total magnification	10,5x – 67,5x	5,3x – 33,8x	7,9x – 50,6x	15,5x – 101,3x	21x – 135x
	Field of view mm	Ø 21,4 – 3,3	Ø 42,9 – 6,7	Ø 28,5 – 4,4	Ø 14,3 – 2,2	Ø 10,7 – 1,7
HSWF 20x	Total magnification	14x – 90x	7x – 45x	10,5x – 67,5x	21x – 135x	28x – 180x
	Field of view mm	Ø 14,3 – 2,2	Ø 28,6 – 4,4	Ø 19,1 – 2,9	Ø 9,5 – 1,5	Ø 7,1 – 1,1
HWF 25x	Total magnification	17,5x – 112,5x	8,8x – 56,3x	13,1x – 91,9x	26,3x – 168,8x	35x – 225x
	Field of view mm	Ø 12,9 – 2,0	Ø 25,7 – 4,0	Ø 17,2 – 2,7	Ø 8,6 – 1,3	Ø 6,4 – 1,0
Working distance		105 mm	177 mm	120 mm	47 mm	26 mm
Maximum sample height		140 mm	35 mm	80 mm	165 mm	185 mm

Model outfit		Model KERN						Order number	Price/piece excl. of VAT ex works €
		OZL 463	**OZL 464**	**OZL 465**	**OZL 466**	**OZL 467**	**OZL 468**		
Eyepieces (30 mm)	HWF 10x/Ø 20 mm	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	OZB-A4631	**45,–**
	HWF 15x/Ø 15 mm	○○	○○	○○	○○	○○	○○	OZB-A4632	**55,–**
	HWF 20x/Ø 10 mm	○○	○○	○○	○○	○○	○○	OZB-A4633	**55,–**
	HWF 25x/Ø 10 mm	○○	○○	○○	○○	○○	○○	OZB-A4634	**60,–**
Auxiliary objectives	0,5x	○	○			○	○	OZB-A4641	**90,–**
	1,5x	○	○			○	○	OZB-A4642	**90,–**
	2x	○	○			○	○	OZB-A4643	**90,–**
	0,75x	○	○			○	○	OZB-A4644	**90,–**
	Soldering protection lens	○	○			○	○	OZB-A4646	**40,–**
C-Mount	1x (focus adjustable)		✓		✓		✓	OZB-A4809	**55,–**
	0,3x (focus adjustable)		○		○		○	OZB-A4810	**95,–**
	0,5x (focus adjustable)		○		○		○	OZB-A4811	**105,–**
Eyepiece camera adapter	1,0x; for fitting an eyepiece camera to the trincular connection of the microscope		○		○		○	OZB-A4863	**40,–**
Stand	Pillar, with 3 W LED illumination (transmitted + incident)	✓	✓						
	Pillar, with 3 W LED illumination (transmitted)			✓	✓				
	mechanical, incl. handle with 3 W LED illumination (transmitted + incident)					✓	✓		
Ring illumination	Integrated into the microscope head as incident illumination			✓	✓				
Stand insert	Frostet glass/Ø 95 mm	✓	✓	✓	✓	✓	✓	OZB-A4670	**25,–**
	Black-white/Ø 95 mm	✓	✓	✓	✓	✓	✓	OZB-A4806	**25,–**

✓ = included with the delivery ○ = Option

Further accessories and spare parts see *internet*



OZL 473

Lab Line

The flexible, affordable all-rounder with flexible incident illumination for training workshops, inspection authorities and laboratories

Features

- The products in the KERN OZL-47 series are stereo zoom microscopes, which will impress you with their easy handling, flexibility as well as their stability and economical price.
- A highlight is the powerful and infinitely dimmable integrated LED double swan neck illumination unit (incident), which ensures individual illumination which can be adjusted quickly
- As well as excellent optical characteristics and their large working surface, these models offer the highest level of comfort in this class – ideal for training companies, workshops as well as assembly and repair workstations, e.g. in the electronics industry.
- As standard this microscope offers you continuous total magnification of 7x – 45x
- The pillar stand offers you the highest level of flexibility and the freedom to remove the microscope head and to integrate it into other modular systems, for example into a universal stand
- A large selection of eyepieces, external illumination units as well as auxiliary objectives are available as accessories
- A protective dust cover, eye cups, as well as multi-lingual user instructions are included in the scope of delivery
- A C-mount adapter is required to connect a camera to the trinocular version. You can select this adapter from the following model outfit list.
- Please find detailed information in the following model outfit list

Scope of application

- In vitro fertilisation, detection of parasites, zoology and botany, tissue preparation, section, quality control

Applications/Samples

- Samples with focus on three-dimesnional impression (depth, thickness), e.g. insects, seeds, circuit boards, components

Technical data

- Optical system: Greenough optics
- Brightness adjustable
- Tube 45° inclined
- Magnification ratio 6,4:1
- OZL 474: Beam path distribution: 0:100
- Interpupillary distance: 55 mm – 75 mm
- Diopter adjustment, both-sided
- Overall dimensions W×D×H 300×240×420 mm
- Net weight approx. 4,2 kg

STANDARD



Model	Tube	Eyepiece	Field of view	Objective Zoom	Stand	Illumination	Price excl. of VAT ex works €
KERN							
OZL 473	Binocular	HWF 10x/Ø 20 mm	Ø 28,6 – 4,4 mm	0,7x - 4,5x	pillar	3 W LED (incident)	**840,–**
OZL 474	Trinocular	HWF 10x/Ø 20 mm	Ø 28,6 – 4,4 mm	0,7x - 4,5x	pillar	3 W LED (incident)	**930,–**

Eyepiece	Specifications – Objectives					
	Magnification	Standard	Auxiliary objectives			
		1,0x	0,5x	0,75x	1,5x	2,0x
HSWF 10x	Total magnification	7x – 45x	3,5x – 22,5x	5,3x – 33,8x	10,5x – 67,5x	14x – 90x
	Field of view mm	Ø 28,6 – 4,4	Ø 57,1 – 8,9	Ø 38,1 – 5,9	Ø 19 – 3	Ø 14,3 – 2,2
HWF 15x	Total magnification	10,5x – 67,5x	5,3x – 33,8x	7,9x – 50,6x	15,5x – 101,3x	21x – 135x
	Field of view mm	Ø 21,4 – 3,3	Ø 42,9 – 6,7	Ø 28,5 – 4,4	Ø 14,3 – 2,2	Ø 10,7 – 1,7
HSWF 20x	Total magnification	14x – 90x	7x – 45x	10,5x – 67,5x	21x – 135x	28x – 180x
	Field of view mm	Ø 14,3 – 2,2	Ø 28,6 – 4,4	Ø 19,1 – 2,9	Ø 9,5 – 1,5	Ø 7,1 – 1,1
HWF 25x	Total magnification	17,5x – 122,5x	8,8x – 56,3x	13,1x – 91,9x	26,3x – 168,8x	35x – 225x
	Field of view mm	Ø 12,9 – 2	Ø 25,7 – 4	Ø 17,2 – 2,7	Ø 8,6 – 1,3	Ø 6,4 – 1
Working distance		105 mm	177 mm	120 mm	47 mm	26 mm
Maximum sample height		140 mm	35 mm	80 mm	165 mm	185 mm

Model outfit		Model KERN		Order number	Price/piece excl. of VAT ex works €
		OZL 473	OZL 474		
Eyepieces (30 mm)	HWF 10x/Ø 20 mm	✓✓	✓✓	OZB-A4631	**45,–**
	HWF 15x/Ø 15 mm	○○	○○	OZB-A4632	**55,–**
	HWF 20x/Ø 10 mm	○○	○○	OZB-A4633	**55,–**
	HWF 25x/Ø 10 mm	○○	○○	OZB-A4634	**60,–**
Auxiliary objectives	0,5x	○	○	OZB-A4641	**90,–**
	0,75x	○	○	OZB-A4644	**90,–**
	1,5x	○	○	OZB-A4642	**90,–**
	2x	○	○	OZB-A4643	**90,–**
	Soldering protection lens	○	○	OZB-A4646	**40,–**
C-Mount	1x (focus adjustable)		✓	OZB-A4809	**55,–**
	0,3x (focus adjustable)		○	OZB-A4810	**95,–**
	0,5x (focus adjustable)		○	OZB-A4811	**105,–**
Eyepiece camera adapter	1,0x; for fitting an eyepiece camera to the trincular connection of the microscope	○	○	OZB-A4863	**40,–**
Stand	Pillar, with 3 W LED illumination (incident)	✓	✓		
Stand insert	Black-white/Ø 95 mm	✓	✓	OZB-A4806	**25,–**

✓ = included with the delivery ○ = Option

Further accessories and spare parts
see *internet*



Lab Line

Stereo zoom microscope with halogen illumination, for the laboratory, training centres, quality control or agriculture

Features

- The KERN OZL 451 stereo zoom microscope will impress you with its excellent optical characteristics, easy operation and high level of ergonomic working comfort
- The Halogen incident and transmitted illumination included as standard guarantees the very best illumination of your sample
- The high-quality optics, together with a large working surface offers the highest level of comfort for your applications.
- As standard this microscope offers you continuous total magnification of 7,5x – 50x
- The pillar stand offers you the highest level of flexibility and the freedom to remove the microscope head and to integrate it into other modular systems, for example into a universal stand
- A large selection of eyepieces, external illumination units as well as auxiliary objectives are available as accessories
- A protective dust cover, eye cups, as well as multi-lingual user instructions are included in the scope of delivery
- Please find detailed information in the following model outfit list

Scope of application

- In vitro fertilisation, detection of parasites, zoology and botany, tissue preparation, section, quality control

Applications/Samples

- Samples with focus on three-dimesnional impression (depth, thickness), e.g. insects, seeds, circuit boards, components

Technical data

- Optical system: Greenough optics
- Brightness adjustable
- Tube 45° inclined
- Magnification ratio 6,7:1
- Interpupillary distance: 55 mm – 75 mm
- Diopter adjustment, both-sided
- Overall dimensions W×D×H 330×270×460 mm
- Net weight approx. 4,6 kg

STANDARD



Model	Tube	Eyepiece	Field of view	Objective Zoom	Stand	Illumination	Price excl. of VAT ex works €
KERN							
OZL 451	Binocular	HSWF 10x/Ø 23 mm	Ø 33 – 5 mm	0,75x - 5x	pillar	10 W Halogen (incident + transmitted)	**760,–**

Eyepiece	Specifications – Objectives				
	Magnification	**Standard**	**Auxiliary objectives**		
		1,0x	**0,5x**	**0,75x**	**2,0x**
HWF 5x	Total magnification	3,75x – 25x	1,875x – 12,5x	2,813x – 18,75x	7,5x – 50x
	Field of view mm	Ø 31 – 4,6	Ø 61,3 – 9,2	Ø 41,3 – 6,1	Ø 16 – 2,5
HSWF 10x	Total magnification	7,5x – 50x	3,75x – 25x	5,625x – 37,5x	15x – 100x
	Field of view mm	Ø 33 – 5	Ø 65 – 10	Ø 44 – 6,7	Ø 16 – 2,5
HWF 15x	Total magnification	11,25x – 75x	5,625x – 37,5x	8,438x – 56,25x	22,5x – 150x
	Field of view mm	Ø 24 – 4,2	Ø 48 – 8,5	Ø 32 – 5,6	Ø 12 – 2
HSWF 20x	Total magnification	15x – 100x	7,5x – 50x	11,25x – 75x	30x – 200x
	Field of view mm	Ø 20 – 3,5	Ø 40 – 7	Ø 26,7 – 4,7	Ø 10 – 1,8
HWF 25x	Total magnification	18,75x – 125x	9,375x – 62,5x	14,063x – 93,75x	37,5x – 255x
	Field of view mm	Ø 15,8 – 2,4	Ø 31,5 – 4,8	Ø 24,1 – 3,2	Ø 7,9 – 1,2
Working distance		113 mm	177 mm	117 mm	35 mm
Maximum sample height		120 mm	60 mm	90 mm	165 mm

Model outfit		Model KERN	Order number	Price/piece excl. of VAT ex works €
		OZL 451		
Eyepieces (30 mm)	HWF 5x/Ø 23,2 mm	○○	OZB-A4112	**45,–**
	HSWF 10x/Ø 23 mm	✓✓	OZB-A4118	**45,–**
	HWF 15x/Ø 15 mm	○○	OZB-A4119	**45,–**
	HSWF 20x/Ø 14,5 mm	○○	OZB-A4120	**70,–**
	HWF 25x/Ø 11,7 mm	○○	OZB-A4121	**70,–**
Auxiliary objectives	0,5x	○	OZB-A4209	**135,–**
	0,75x	○	OZB-A4210	**135,–**
	2x	○	OZB-A4206	**130,–**
Stand	Pillar, with 12 V/10 W Halogen Illumination (transmitted + incident)	✓		
Stand insert	Frostet glass/Ø 95 mm	✓	OZB-A4805	**25,–**
	Black-white/Ø 95 mm	✓	OZB-A4806	**25,–**
Illumination	10 W spar bulb (transmitted + incident)	✓	OZB-A4804	**25,–**
Mechanical stage (Pre-assembling on request)	Stage size B×T 180×155 mm, Travel 75×55 mm, for transmitted and incident illumination	○	OZB-A4605	**260,–**

✓ = included with the delivery ○ = Option

Further accessories and spare parts see *internet*





Infinitely dimmable integrated LED ring illumination in the lens housing

Lab Line

The practical and flexible stereo zoom microscope with integrated LED ring illumination and large zoom range

Features

- The KERN OZL 456 stereo zoom microscope will impress you with its excellent optical characteristics, easy operation and its integrated LED ring illumination unit
- The highlight of the KERN OZL 456 is the strong, continuoulsy dimmable, integrated LED ring illumination in the objective housing, which ensures uniform, shadow-free illumination. An LED transmitted light variant is also included
- With its built-in, top-quality optics and powerful, integrated LED illumination unit, this model is a special all-rounder for all areas of application
- As standard this microscope offers you continuous total magnification of 7,5x – 50x
- As standard, the KERN OZL 456 is provided as a binocular version with 10x eyepieces with a field of view with a diameter of 23 mm
- The arm curved stand gives you a large working area as well as a precise adjustment mechanism
- A large selection of eyepieces as well as auxiliary objectives are available as accessories
- A protective dust cover, eye cups, as well as multi-lingual user instructions are included in the scope of delivery
- Please find detailed information in the following model outfit list

Scope of application

- In vitro fertilisation, detection of parasites, zoology and botany, tissue preparation, section, quality control

Applications/Samples

- Samples with focus on three-dimesnional impression (depth, thickness), e.g. insects, seeds, circuit boards, components

Technical data

- Optical system: Greenough optics
- Incident illumination dimmable
- Tube 45° inclined
- Magnification ratio 6,7:1
- Interpupillary distance: 55 mm – 75 mm
- Diopter adjustment, both-sided
- Overall dimensions W×D×H 320×275×420 mm
- Net weight approx. 4,6 kg

STANDARD



Model	Tube	Eyepiece	Field of view	Objective Zoom	Stand	Illumination	Price excl. of VAT ex works €
KERN							
OZL 456	Binocular	HSWF 10x/Ø 23 mm	Ø 33 – 5 mm	0,75x - 5x	mechanical	1 W LED (incident), 0,21 W LED (transmitted)	**870,–**

Eyepiece	Specifications – Objectives	
	Magnification	**Standard**
		1,0x
HWF 5x	Total magnification	3,75x – 25x
	Field of view mm	Ø 31 – 4,6
HSWF 10x	Total magnification	7,5x – 50x
	Field of view mm	Ø 33 – 5
HWF 15x	Total magnification	11,25x – 75x
	Field of view mm	Ø 24 – 4,2
HSWF 20x	Total magnification	15x – 100x
	Field of view mm	Ø 20 – 3,5
HWF 25x	Total magnification	18,75x – 125x
	Field of view mm	Ø 15,8 – 2,4
Working distance		113 mm
Maximum sample height		45 mm

Model outfit		Model KERN	Order number	Price/piece excl. of VAT ex works €
		OZL 456		
Eyepieces (30 mm)	HWF 5x/Ø 23,2 mm	○○	OZB-A4112	**45,–**
	HSWF 10x/Ø 23 mm	✓✓	OZB-A4118	**45,–**
	HWF 15x/Ø 15 mm	○○	OZB-A4119	**45,–**
	HSWF 20x/Ø 14,5 mm	○○	OZB-A4120	**70,–**
	HWF 25x/Ø 11,7 mm	○○	OZB-A4121	**70,–**
Stand	mechanical, with LED lighting (0,21 W transmitted + 1 W incident)	✓	OZB-A4341	**235,–**
Stand insert	Frostet glass/Ø 95 mm	✓	OZB-A4805	**25,–**
	Black-white/Ø 95 mm	✓	OZB-A4806	**25,–**
Mechanical stage (Pre-assembling on request)	Stage size B×T 180×155 mm, Travel 75×55 mm, for transmitted and incident illumination	○	OZB-A4605	**260,–**

✓ = included with the delivery ○ = Option

Further accessories and spare parts see *internet*



OZM 542



OZM 544

Lab Line

First-class optics and strong illumination combined with a high level of flexibility

Features

- The KERN OZM-5 series is a range of excellent stereo zoom microscopes with above-average optical features.
- The ergonomic shape allows a simple, effortless working over a period of several hours.
- The extraordinarily strong and continuously dimmable 3W LED incident and transmitted illumination ensures a flexible and particularly good level of illumination for your sample.
- With its large working distance, an extra large field of view and its brilliant resolution, the KERN OZM provides sharp, high-contrast, colour-true images.
- As standard this microscope offers you continuous total magnification of 7x – 45x
- There is a choice of a binocular model as well as a trinocular model for connecting a camera for documentation purposes and for quality reports
- The pillar stand is particularly flexible due to its variable and sturdy adjustment mechanism and therefore enables ergonomic working procedures
- A large selection of eyepieces, (universal) stands, a darkfield kit, external illumination units as well as auxiliary objectives and more are available as accessories
- A protective dust cover, eye cups, as well as multi-lingual user instructions are included in the scope of delivery
- A C-mount adapter is required to connect a camera to the trinocular version. You can select this adapter from the following model outfit list.
- Please find detailed information in the following model outfit list

Scope of application

- In vitro fertilisation, detection of parasites, zoology and botany, tissue preparation, section, quality control, LCD/LED electronics, semiconductor technology, assembly and repair

Applications/Samples

- Samples with focus on three-dimesnional impression (depth, thickness), e.g. insects, seeds, circuit boards, components

Technical data

- Optical system: Greenough optics
- Brightness adjustable (separate)
- Tube 45° inclined
- Magnification ratio 6,4:1
- OZM 544: Beam path distribution: 0:100
- Interpupillary distance: 52 mm – 76 mm
- Diopter adjustment, both-sided
- Overall dimensions W×D×H 330×285×440 mm
- Net weight approx. 4,8 kg

STANDARD



OPTION



Model	Tube	Eyepiece	Field of view	Objective Zoom	Stand	Illumination	Price excl. of VAT ex works €
KERN							
OZM 542	Binocular	HSWF 10x/Ø 23 mm	Ø 32,8 – 5,1 mm	0,7x - 4,5x	pillar	3 W LED (incident + transmitted)	**1390,–**
OZM 544	Trinocular	HSWF 10x/Ø 23 mm	Ø 32,8 – 5,1 mm	0,7x - 4,5x	pillar	3 W LED (incident + transmitted)	**1730,–**

Eyepiece	Specifications – Objectives					
	Magnification	**Standard**	**Auxiliary objectives**			
		1,0x	**0,5x**	**0,7x**	**1,5x**	**2,0x**
HSWF 10x	Total magnification	7x – 45x	3,5x – 22,5x	4,9x – 31,5x	10,5x – 67,5x	14x – 90x
	Field of view mm	Ø 32,8 – 5,1	Ø 65,7 – 10,2	Ø 46,9 – 7,3	Ø 21,9 – 3,4	Ø 16,4 – 2,6
SWF 15x	Total magnification	10,5x – 67,5x	5,3x – 33,8x	7,4x – 47,2x	15,8x – 101,3x	21x – 135x
	Field of view mm	Ø 24,3 – 3,8	Ø 48,6 – 7,6	Ø 34,7 – 5,4	Ø 16,2 – 2,5	Ø 12,1 – 1,9
SWF 20x	Total magnification	14x – 90x	7x – 45x	9,8x – 63x	21x – 135x	28x – 180x
	Field of view mm	Ø 20 – 3,1	Ø 40 – 6,2	Ø 28,6 – 4,4	Ø 13,3 – 2,1	Ø 10 – 1,6
SWF 30x	Total magnification	21x – 135x	10,5x – 67,5x	14,7x – 94,5x	31,5x – 202,5x	42x – 270x
	Field of view mm	Ø 12,9 – 2	Ø 25,7 – 4	Ø 18,4 – 2,9	Ø 8,6 – 1,6	Ø 6,4 – 1
Working distance		110 mm	195 mm	145 mm	58 mm	35 mm
Maximum sample height		130 mm	30 mm	65 mm	160 mm	175 mm

Model outfit		Model KERN		Order number	Price/piece excl. of VAT ex works €
		OZM 542	**OZM 544**		
Eyepieces (30 mm)	HSWF 10x/Ø 23 mm	✓✓	✓✓	OZB-A5503	**70,–**
	SWF 15x/Ø 17 mm	○○	○○	OZB-A5504	**75,–**
	SWF 20x/Ø 14 mm	○○	○○	OZB-A5505	**85,–**
	SWF 30x/Ø 9 mm	○○	○○	OZB-A5506	**120,–**
	HSWF 10x/Ø 23 mm (reticule 0,1 mm)	○	○	OZB-A5512	**125,–**
	SWF 15x/Ø 17 mm (reticule 0,05 mm)	○	○	OZB-A5513	**140,–**
	SWF 20x/Ø 14 mm (reticule 0,05 mm)	○	○	OZB-A5514	**140,–**
Achromatic auxiliary objectives	0,5x	○	○	OZB-A5612	**160,–**
	0,7x	○	○	OZB-A5613	**160,–**
	1,5x	○	○	OZB-A5615	**160,–**
	2x	○	○	OZB-A5616	**165,–**
	Soldering protection lens	○	○	OZB-A5614	**50,–**
C-Mount	0,3x (focus adjustable)		○	OZB-A5701	**140,–**
	0,5x (focus adjustable)		○	OZB-A5702	**140,–**
	1x (focus adjustable)		○	OZB-A5703	**105,–**
	1,0x (with micrometer) only in combination with OZB-A5703		○	OZB-A5704	**295,–**
Darkfield unit		○	○	OZB-A4601	**80,–**
Object clamp		○	○	OBB-A6205	**75,–**
Stand	Pillar, with 3 W LED illumination (transmission + incident)	✓	✓		
Stand insert	Frostet glass/Ø 94,5 mm	✓	✓	OZB-A5192	**25,–**
	Black-white/Ø 94,5 mm	✓	✓	OZB-A5191	**25,–**
	Clear glass/Ø 94,5 mm	○	○	OZB-A5190	**25,–**
Mechanical stage (Pre-assembling on request)	Stage size B×T 188×160 mm, Travel 76×65 mm, for transmitted and incident illumination	○	○	OZB-A5781	**240,–**
	Stage size B×T 180×175 mm, Travel 100×86 mm, for incident illumination only	○	○	OZB-A5782	**270,–**

✓ = included with the delivery ○ = Option

Further accessories and spare parts see *internet*



OZP 556



OZP 558

Lab Line

Professional and powerful – thanks to its extremely large magnification range, strong illumination and first-class optics

Features

- The KERN OZP stereo zoom microscope stands out through its above-average magnification range and its robust shape which is also ergonomic, it enables effortless, simple working over a period of several hours
- The KERN OZP series is available as a strong, continuously adjustable 3W LED reflected and transmitted light variant for the very best illumination of your sample
- With its large working distance, an extra large field of view and its brilliant resolution, the KERN OZP provides sharp, high-contrast, colour-true images.
- As standard this microscope offers you continuous total magnification of 6x – 55x
- There is a choice of a binocular model as well as a trinocular model for connecting a camera for documentation purposes and for quality reports
- The pillar stand is particularly flexible due to its variable and sturdy adjustment mechanism and therefore enables ergonomic working procedures
- A large selection of eyepieces, (universal) stands, a darkfield kit, external illumination units as well as auxiliary objectives and more are available as accessories
- A protective dust cover, eye cups, as well as multi-lingual user instructions are included in the scope of delivery
- A C-mount adapter is required to connect a camera to the trinocular version. You can select this adapter from the following model outfit list.
- Please find detailed information in the following model outfit list

Scope of application

- Zoology and botany, quality control, LCD/LED electronics, semiconductor technology, assembly and repair

Applications/Samples

- Samples with focus on three-dimesnional impression (depth, thickness), e.g. insects, seeds, circuit boards, components

Technical data

- Optical system: Greenough optics
- Brightness adjustable (separate)
- Tube 35° inclined
- Magnification ratio 9,2:1
- OZP 558: Beam path distribution: 0:100
- Interpupillary distance: 52 mm – 76 mm
- Diopter adjustment, both-sided
- Overall dimensions W×D×H 330×285×470 mm
- Net weight approx. 4,8 kg

STANDARD



OPTION



Model	Tube	Eyepiece	Field of view	Objective Zoom	Stand	Illumination	Price excl. of VAT ex works €
KERN							
OZP 556	Binocular	HSWF 10x/Ø 23 mm	Ø 35 – 4,2 mm	0,6x - 5,5x	pillar	3 W LED (incident + transmitted)	**1480,–**
OZP 558	Trinocular	HSWF 10x/Ø 23 mm	Ø 38,3 – 4,2 mm	0,6x - 5,5x	pillar	3 W LED (incident + transmitted)	**1830,–**

Eyepiece	Specifications – Objectives					
	Magnification	**Standard**	**Auxiliary objectives**			
		1,0x	**0,5x**	**0,7x**	**1,5x**	**2,0x**
HSWF 10x	Total magnification	6x – 55x	3x – 27,5x	4,2x – 38,5x	9x – 82,5x	12x – 110x
	Field of view mm	Ø 38,3 – 4,2	Ø 76,7 – 8,4	Ø 54,8 – 6	Ø 25,6 – 2,8	Ø 19,2 – 2,1
SWF 15x	Total magnification	9x – 82,5x	4,5x – 41,25x	6,3x – 57,75x	13,5x – 123,75x	18x – 165x
	Field of view mm	Ø 28,3 – 3,1	Ø 56,7 – 6,2	Ø 40,5 – 4,4	Ø 18,9 – 2,1	Ø 14,2 – 1,5
SWF 20x	Total magnification	12x – 110x	6x – 55x	8,4x – 77x	18x – 165x	24x – 220x
	Field of view mm	Ø 23,3 – 2,5	Ø 46,7 – 5,1	Ø 33,3 – 3,6	Ø 15,6 – 1,7	Ø 11,7 – 1,3
SWF 30x	Total magnification	18x – 165x	9x – 82,5x	12,6x – 115,5x	27x – 247,5x	36x – 330x
	Field of view mm	Ø 15 – 1,6	Ø 30 – 3,3	Ø 21,4 – 2,3	Ø 10 – 1,1	Ø 7,5 – 0,8
Working distance		108 mm	195 mm	145 mm	58 mm	35 mm
Maximum sample height		110 mm	10 mm	45 mm	140 mm	150 mm

Model outfit		Model KERN		Order number	Price/piece excl. of VAT ex works €
		OZP 556	**OZP 558**		
Eyepieces (30 mm)	HSWF 10x/Ø 23 mm	✓✓	✓✓	OZB-A5503	**70,–**
	SWF 15x/Ø 17 mm	○○	○○	OZB-A5504	**75,–**
	SWF 20x/Ø 14 mm	○○	○○	OZB-A5505	**85,–**
	SWF 30x/Ø 9 mm	○○	○○	OZB-A5506	**120,–**
	HSWF 10x/Ø 23 mm (reticule 0,1 mm)	○	○	OZB-A5512	**125,–**
	SWF 15x/Ø 17 mm (reticule 0,05 mm)	○	○	OZB-A5513	**140,–**
	SWF 20x/Ø 14 mm (reticule 0,05 mm)	○	○	OZB-A5514	**140,–**
Achromatic auxiliary objectives	0,5x	○	○	OZB-A5612	**160,–**
	0,7x	○	○	OZB-A5613	**160,–**
	1,5x	○	○	OZB-A5615	**160,–**
	2x	○	○	OZB-A5616	**165,–**
	Soldering protection lens	○	○	OZB-A5614	**50,–**
C-Mount	0,3x (focus adjustable)		○	OZB-A5701	**140,–**
	0,5x (focus adjustable)		○	OZB-A5702	**140,–**
	1x (focus adjustable)		○	OZB-A5703	**105,–**
	1,0x (with micrometer) only in combination with OZB-A5703		○	OZB-A5704	**295,–**
Darkfield unit		○	○	OZB-A4601	**80,–**
Object clamp		○	○	OBB-A6205	**75,–**
Stand	Pillar, with 3 W LED illumination (transmission + incident)	✓	✓		
Stand insert	Frostet glass/Ø 94,5 mm		✓	OZB-A5192	**25,–**
	Black-white/Ø 94,5 mm	✓	✓	OZB-A5191	**25,–**
	Clear glass/Ø 94,5 mm		○	OZB-A5190	**25,–**
Mechanical stage (Pre-assembling on request)	Stage size B×T 188×160 mm, Travel 76×65 mm, for transmitted and incident illumination	○	○	OZB-A5781	**240,–**
	Stage size B×T 180×175 mm, Travel 100×86 mm, for incident illumination only	○	○	OZB-A5782	**270,–**

✓ = included with the delivery ○ = Option

Further accessories and spare parts see *internet*



Professional Line

Professional stereo zoom microscope with parallel optics for excellent images, depth of field, contrast and fatigue-free working

Features

- The KERN OZS 574 is a a special, high-quality stereo zoom microscope with parallel optics for demanding analyses
- The KERN OZS 574 is available as a strong, continuously adjustable 3 W LED reflected and transmitted light variant for the very best illumination of your sample
- The parallel optical system is a high-quality optical system and provides excellent images with the best contrast, colour and depth of field with fatigue-free working. Refocusing is also only necessary in very few cases when magnifying the zoom.
- As standard this microscope offers you continuous total magnification of 8x – 80x
- As standard, the KERN OZS 574 is trinocular and is therefore equipped for connecting a camera for documentation purposes and for quality reports.
- The pillar stand is particularly flexible due to its variable and sturdy adjustment mechanism and therefore enables ergonomic working procedures.
- A large selection of eyepieces, (universal) stands, a darkfield kit, external illumination units as well as auxiliary objectives and more are available as accessories
- A protective dust cover, eye cups, as well as multi-lingual user instructions are included in the scope of delivery
- A C-mount adapter is required to connect a camera to the trinocular version. You can select this adapter from the following model outfit list.
- Please find detailed information in the following model outfit list

Scope of application

- In vitro fertilisation, detection of parasites, zoology and botany, tissue preparation, section, quality control, LCD/LED electronics, semiconductor technology, assembly and repair

Applications/Samples

- Samples with focus on three-dimesnional impression, zoom with variable magnification (depth, thickness), e.g. insects, seeds, circuit boards, components

Technical data

- Optical system: Parallel optics
- Brightness adjustable (separate)
- Tube 45° inclined
- Magnification ratio 10,0:1
- Beam path distribution: 0:100
- Interpupillary distance: 52 mm – 76 mm
- Diopter adjustment, both-sided
- Overall dimensions W×D×H 305×300×540 mm
- Net weight approx. 6 kg

Further accessories and spare parts
see *internet*

STANDARD



OPTION



Model KERN	Tube	Eyepiece	Field of view	Objective Zoom	Stand	Illumination	Price excl. of VAT ex works € €
OZS 574	Trinocular	HWF 10x/Ø 22 mm	Ø 27,5 – 2,75 mm	0,8x - 8x	pillar	3 W LED (incident + transmitted)	**3640,–**

Eyepiece	Specifications – Objectives				
	Magnification	**Standard Plan**	**Achr. objective**		**Achr. objective (Auxiliary)**
		1,0x	**0,5x**	**0,7x**	**1,5x**
HWF 10x	Total magnification	8x – 80x	4x – 40x	5,6x – 56x	12x – 120x
	Field of view mm	Ø 27,5 – 2,75	Ø 55 – 5,5	Ø 39,3 – 3,93	Ø 18,33 – 1,83
SWF 15x	Total magnification	12x – 120x	6x – 60x	8,4x – 84x	18x – 180x
	Field of view mm	Ø 21,25 – 2,13	Ø 42,5 – 4,25	Ø 30,36 – 3,04	Ø 14,17 – 1,42
SWF 20x	Total magnification	16x – 160x	8x – 80x	11,2x – 112x	24x – 240x
	Field of view mm	Ø 17,5 – 1,75	Ø 35 – 3,5	Ø 25 – 2,5	Ø 11,67 – 1,17
SWF 30x	Total magnification	24x – 240x	12x – 120x	16,8x – 168x	36x – 360x
	Field of view mm	Ø 11,25 – 1,13	Ø 22,5 – 2,25	Ø 16,1 – 1,61	Ø 7,5 – 0,75
Working distance		91 mm	186 mm	135 mm	40 mm
Maximum sample height		100 mm	30 mm	80 mm	125 mm

Model outfit		Model KERN	Order number	Price/piece excl. of VAT ex works €
		OZS 574		
Eyepieces (30 mm)	HWF 10x/Ø 22 mm	✓✓	OZB-A5502	**75,–**
	SWF 15x/Ø 17 mm	○○	OZB-A5504	**75,–**
	SWF 20x/Ø 14 mm	○○	OZB-A5505	**85,–**
	SWF 30x/Ø 9 mm	○○	OZB-A5506	**120,–**
	HWF 10x/Ø 22 mm (reticule 0,1 mm)	○	OZB-A5511	**130,–**
	SWF 15x/Ø 17 mm (reticule 0,05 mm)	○	OZB-A5513	**140,–**
	SWF 20x/Ø 14 mm (reticule 0,05 mm)	○	OZB-A5514	**140,–**
Plan achromatic objective	1x	✓	OZB-A5603	**640,–**
Achromatic objectives	0,5x	○	OZB-A5601	**230,–**
	0,7x	○	OZB-A5602	**230,–**
	1,5x, Only in combination with OZB-A5603	○	OZB-A5604	**300,–**
Trinocular beamsplitter	Division 100:0	✓	OZB-A5401	**660,–**
	Division 50:50	○	OZB-A5402	**660,–**
C-Mount	0,3x (focus adjustable)	○	OZB-A5701	**140,–**
	0,5x (focus adjustable)	○	OZB-A5702	**140,–**
	1x (focus adjustable)	○	OZB-A5703	**105,–**
	1,0x (with micrometer) only in combination with OZB-A5703	○	OZB-A5704	**295,–**
Darkfield unit		○	OZB-A4601	**80,–**
Object clamp		○	OBB-A6205	**75,–**
Stand	Pillar, with 3 W LED illumination (transmission + incident)	✓		
Stand insert	Frostet glass/Ø 94,5 mm	✓	OZB-A5192	**25,–**
	Black-white/Ø 94,5 mm	✓	OZB-A5191	**25,–**
	Clear glass/Ø 94,5 mm	○	OZB-A5190	**25,–**
Mechanical stage (Pre-assembling on request)	Stage size B×T 188×160 mm, Travel 76×65 mm, for transmitted and incident illumination	○	OZB-A5781	**240,–**
	Stage size B×T 180×175 mm, Travel 100×86 mm, for incident illumination only	○	OZB-A5782	**270,–**

✓ = included with the delivery ○ = Option





Side view

Lab Line

The specialist for jewellers and the gem industry

Features

- The KERN OZG 493 has been specially developed for jewellers and mineral observations in the gem industry. Precious stones and gems can be checked and handled with this stereo zoom microscope
- As standard this microscope offers you continuous total magnification of 7x – 36x
- As well as very good optical characteristics, these models form an ideal package with their dark field unit with object clamp which is included in the scope of delivery.
- The KERN OZG 493 is fitted with a pole stand which has both integrated bright halogen light units with incident and transmitted illumination, as well as additional front lighting
- There is a range of eyepieces available as accessory options
- A protective dust cover, eye cups, as well as multi-lingual user instructions are included in the scope of delivery
- Please find detailed information in the following model outfit list

Scope of application

- Jewellers and gem industry

Applications/Samples

- Samples with focus on three-dimesnional impression (depth, thickness), zoom for variable magnification, special stand for processing workpieces e.g. gems, components, precious stones

Technical data

- Optical system: Greenough optics
- Brightness adjustable
- Tube 45° inclined
- Magnification ratio 5,1:1
- Interpupillary distance: 55 mm – 75 mm
- Diopter adjustment, both-sided
- Overall dimensions W×D×H 310×170×350 mm
- Net weight approx. 6 kg

STANDARD



Model	Tube	Eyepiece	Field of view	Objective Zoom	Stand	Illumination	Price excl. of VAT ex works €
KERN							
OZG 493	Binocular	WF 10x/Ø 20 mm	Ø 28 – 5,6 mm	0,7x - 3,6x	pillar	10 W Halogen (incident + transmitted) 10 W Fluorescence (front illumination)	**610,–**

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Eyepiece	Specifications – Objectives	
	Magnification	**Standard**
		1,0x
WF 5x	Total magnification	3,75x – 18x
	Field of view mm	Ø 26 – 6
WF 10x	Total magnification	7,5x– 36x
	Field of view mm	Ø 26,7 – 5,6
WF 15x	Total magnification	11,25x – 54x
	Field of view mm	Ø 19 – 4,5
WF 20x	Total magnification	15x – 72x
	Field of view mm	Ø 12,5 – 3
Working distance		86 mm

Model outfit		Model KERN	Order number	Price/piece excl. of VAT ex works €
		OZG 493		
Eyepieces (30,5 mm)	WF 5x/Ø 16,2 mm	○○	OZB-A4101	**40,–**
	WF 10x/Ø 20 mm	✓✓	OZB-A4102	**35,–**
	WF 15x/Ø 15 mm	○○	OZB-A4103	**35,–**
	WF 20x/Ø 10 mm	○○	OZB-A4104	**40,–**
Darkfield unit		✓	OZB-A4601	**80,–**
Object clamp		✓	OZB-A4604	**35,–**
Stand	Pillar, with 12 V/10 W Halogen (transmitted + incident) and 10 W Flourescent illumination (front)	✓		
Stand insert	Frostet glass/Ø 95 mm	✓	OZB-A4805	**25,–**
	Black-white/Ø 95 mm	✓	OZB-A4806	**25,–**
Illumination	10W spar bulb (transmitted + incident)	✓	OZB-A4804	**25,–**

✓ = included with the delivery ○ = Option

Further accessories and spare parts
see *internet*

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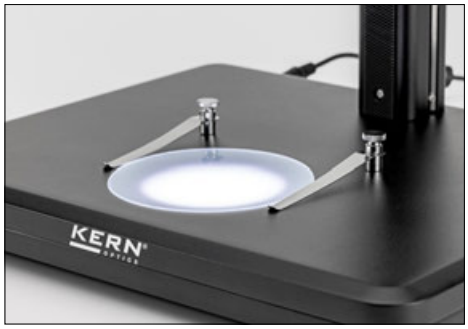
5

VIDEO MICROSCOPES





The entry level video microscope with bright image reproduction and intuitive operation



NEW: KERN OIV 355 Stand with combined incident- and transmitted-light illumination



KERN OIV 901: Universal stands with hinged arm for clamping onto the edge of the bench



KERN OIV 902: Universal stands with hinged arm for screw onto a bench surface

Features

- The KERN OIV-3 is a video microscope which has been constructed to optimise digital stereo microscopy. Our well-conceived, comprehensive solution with axial optical unit enables immediate, simple display of your samples on the screen
- The LED incident illumination unit (ring) included as standard guarantees the very best illumination of your sample
- Combined with the large working surface, recording objects on the screen is ideally suited for monitoring, analysis and documentation in industrial environments
- The excellent optical unit enables continuous sharp image tracking across the entire zoom range from 0,7x - 4,5x
- The high-quality display made from toughened glass is easy to clean due to the absence of edges
- The intuitive software and wireless USB mouse, both included with delivery, make it possible for you to easily process your results digitally and store them
- Using an HDMI interface it is possible to connect an additional monitor and in this way you can observe two devices operated in parallel in real time
- The image can be viewed on the PC using a USB connection. The software required for this also offers the option of carrying out measurements. It is available for download (see *internet* S-Viewer microscope camera software)
- A special feature of this microscope range are the zoom wheels with integrated click stop. These offer precise selection of magnification levels and support the user when calibrating the documentation functions in the software
- The video microscope has one HDMI and two USB 2.0 interfaces as well as a micro SD card slot
- A protective dust cover, a USB stick (32 GB), a wireless USB mouse as well as multi-lingual user instructions are included in the delivery
- Menu languages: DE, EN, FR, IT, RU, JA, ZH

NEW: KERN OIV 355

- Combined incident- and transmitted-light illumination: The transmitted-light LED integrated in the stand supplements the incident-light illumination for flexible sample illumination

KERN OIV-9

- The integrated universal stands with hinged arm enable flexible working with the most varied samples, even with greater working distances. In addition, the microscope can be pushed to the side if necessary, to create space
- KERN OIV 901: Universal stands with hinged arm for clamping: The user simply attaches the microscope to the edge of a bench using the clamping device delivered with the product
- KERN OIV 902: Universal stands with hinged arm for screw onto a bench surface. Hole required

Technical data

- Optical system: Axial
- Screen: 12", 1920×1080 HD, -5° – 90° inclination
- Magnification ratio 6,4:1
- Frame rate: 60 fps
- Camera resolution: 5 MP
- Stand: mechanical
- Illumination infinitely dimmable
- Data storage: External using USB (Max 32 GB)
- Working distance: 100 mm
- KERN OIV-9: Length Jointed arm
- KERN OIV-9: Column height 470 mm
- Overall dimensions W×D×H
  KERN OIV-3: 320×260×450 mm
  KERN OIV-9: 320×260×450 mm
- Net weight
  KERN OIV-3: approx. 4,4 kg
  KERN OIV-9: approx. 4,4 kg

Scope of application

- Quality control
- Material testing
- Electronics and semiconductor industry
- Training
- Research
- Mineralogy
- Tissue preparation
- Detection of parasites

5

STANDARD



OIV 355

Model	Resolution camera	Objective Zoom	Interface	Illumination	Stand	Price excl. of VAT ex works €
KERN						
OIV 345	5 MP	0,7x - 4,5x	USB 2.0, HDMI, MicroSD card slot (60 fps)	3 W LED (incident)	Stand with base plate	**2520,–**
OIV 355 NEW	5 MP	0,7x - 4,5x	USB 2.0, HDMI, MicroSD card slot (60 fps)	3 W LED (incident), 5 W LED (transmitted)	Stand with base plate	**2720,–**
OIV 901	5 MP	0,7x - 4,5x	USB 2.0, HDMI, MicroSD card slot (60 fps)	3 W LED (incident)	Universal hinge arm with clamp	**2960,–**
OIV 902	5 MP	0,7x - 4,5x	USB 2.0, HDMI, MicroSD card slot (60 fps)	3 W LED (incident)	Universal hinge arm with screws	**2990,–**

NEW New model



The comprehensive digital solution for increased working comfort when carrying out continuous monitoring work in industry

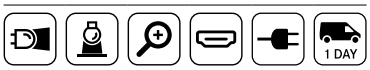
Features

- The KERN OIV-2 is a video microscope which has been constructed to optimise digital stereo microscopy. Our well-conceived, comprehensive solution with axial optical unit enables immediate, simple display of your samples on the screen
- The LED incident illumination unit (ring) included as standard guarantees the very best illumination of your sample
- Combined with the large working surface, recording objects on the screen is ideally suited for monitoring, analysis and documentation in industrial environments
- The excellent optical unit enables continuous sharp image tracking across the entire zoom range from 0,7x - 5x
- The powerful 2 MP camera of the microscope without eyepieces offers, thanks to the HDMI output, smooth live monitoring of your samples from the HD monitor. In addition, the software which is easy to use, the USB wireless mouse which are integral components of the delivery, mean you can process and store your results digitally
- With the OIV 254 model, there is the option of image documentation at the push of a button, without having to detour via the software. On the other hand, the OIV 255 guarantees software-controlled taking of images and videos with additional, extensive measuring functions
- A protective dust cover, as well as multi-lingual user instructions are included in the scope of delivery

Technical data

- Optical system: Axial
- Screen: 12", 1920×1080 HD, -5° – 15° inclination
- Magnification ratio 7,1:1
- Stand: mechanical
- Illumination: 2 W-LED ring (Reflected light)
- Brightness adjustable
- Data storage: External using USB (Max 128 GB)
- Working distance: 105 mm
- Maximum sample height: 100 mm
- Overall dimensions W×D×H 320×260×483 mm
- Net weight approx. 6 kg

STANDARD



Model	Resolution camera	Interface	Sensor	Field of view	Objective Zoom	Software functions	Price excl. of VAT ex works
KERN				mm			€
OIV 254*	2 MP	HDMI (60 fps)	CMOS 1/2"	Ø 29,82 – 4,18	0,7x - 5x	Image capture	**1950,–**
OIV 255*	2 MP	HDMI (60 fps)	CMOS 1/2"	Ø 29,82 – 4,18	0,7x - 5x	Images and videos, documentation	**1990,–**

* ONLY WHILE STOCKS LAST





The professional video microscope with auto-focus

Features

- The KERN OIV-6 is a video microscope which has been constructed to optimise digital stereo microscopy. Our well-conceived, comprehensive solution with axial optical unit enables immediate, simple display of your samples on the screen
- The LED incident illumination unit (ring) included as standard guarantees the very best illumination of your sample
- Combined with the large working surface, recording objects on the screen is ideally suited for monitoring, analysis and documentation in industrial environments
- The excellent optical unit enables continuous sharp image tracking across the entire zoom range from 0,7x - 4,5x
- Through the integrated auto-focus, the focus level can also be optimised within a defined image section
- The powerful 2 MP camera of the microscope without eyepieces offers, thanks to the HDMI output, smooth live monitoring of your samples using an external monitor (not included with delivery). In addition, the software which is easy to use, the USB stick as well as the USB mouse which are integral components of the delivery, mean you can process and store your results digitally
- The OIV 656 guarantees software-controlled taking of images and videos with additional, extensive documentation functions
- A multi-lingual user instruction is included in the scope of the delivery

Technical data

- Optical system: Axial
- Magnification ratio 6,5:1
- Stand: mechanical
- Illumination: 3 W-LED ring (Reflected light)
- Brightness adjustable
- Data storage: External using USB (Max 128 GB)
- Working distance: 91 mm
- Maximum sample height: 85 mm
- Overall dimensions W×D×H 372×285×482 mm
- Net weight approx. 7 kg

STANDARD



Model	Resolution camera	Interface	Sensor	Field of view	Objective Zoom	Software functions	Price excl. of VAT ex works €
KERN				mm			
OIV 656*	2 MP	HDMI (30 FPS)	CMOS 1/2,8"	Ø 12,64 – 2,65	0,7x - 4,5x	Images and videos documentation	**4600,–**

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6

DIGITAL MICROSCOPE SETS





OBE-1 + ODC 825/832



OBE-1 + ODC 241

Our all-round compound microscope as a comprehensive digital solution for schools, training and laboratories

Features

- Laboratory microscopes from the OBE range are also available to you as a comprehensive digital solution for your live investigations. Optionally available with an mounted tablet or C-mount camera. Naturally, the appropriate C-mount adapter is included with the delivery
- The mounted KERN ODC 241 tablet-camera has been specially developed for simple, convenient and direct investigation of the sample on the screen. Ideally suited for school pupils and students in education or for demonstration purposes in the laboratory
- The mounted C-mount camera is available in different versions and can be used anywhere
- A protective dust cover, eye cups, as well as multi-lingual user instructions are included in the scope of delivery

Technical data

- Finite optical system DIN
- 4-fold lens revolving unit
- Butterfly 30° angled
- Diopter adjustment, one-sided
- Eyepiece: HWF 10x/Ø 18 mm
- Objective quality: Achromatic
- Objectives OBE 124: 4x/10x/40x
- Objectives OBE 134: 4x/10x/40x/100x
- Illumination: 3 W LED (transmitted)
- Overall dimensions W×D×H 360×150×390 mm
- Net weight approx. 6 kg

For detailed information on the individual components, see the relevant product description of the individual item

Model KERN	Included camera	Camera Resolution	Camera Interface	Camera Framerate	Camera Sensor	Price excl. of VAT ex works €
OBE 124C825	ODC 825	5,1 MP	USB 2.0	6,8 - 55 fps	CMOS 1/2,5"	**1230,–**
OBE 134C825						**1290,–**
OBE 124C832	ODC 832	5,1 MP	USB 3.0	14,2 - 101,2 fps	CMOS 1/2,5"	**1380,–**
OBE 134C832						**1440,–**
OBE 124T241	ODC 241	5 MP	WiFi, USB 2.0, HDMI, MicroSD card slot	30 fps	Sony CMOS 1/2,8"	**1820,–**
OBE 134T241						**1890,–**



OBL-1 + ODC 825/832



OBL-1 + ODC 241

The digital laboratory assistant with infinity optical unit and fixed, pre-centred Koehler illumination

Features

- Laboratory microscopes from the OBL range are also available to you as a comprehensive digital solution for your live investigations. Optionally available with an mounted tablet or C-mount camera. Naturally, the appropriate C-mount adapter is included with the delivery
- The mounted KERN ODC 241 tablet-camera has been specially developed for simple, convenient and direct investigation of the sample on the screen. Ideally suited for school pupils and students in education or for demonstration purposes in the laboratory
- The mounted C-mount camera is available in different versions and can be used anywhere
- A protective dust cover, eye cups, as well as multi-lingual user instructions are included in the scope of delivery

Technical data

- Infinity optical system
- 4-fold lens revolving unit
- Siedentopf 30° inclined/360° rotatable
- Diopter adjustment, one-sided
- Eyepiece: HWF 10x/Ø 20 mm
- Objective quality: Infinity E-Plan
- Objectives: 4x/10x/40x/100x
- Illumination: 3 W LED (transmitted)
- Overall dimensions W×D×H: 394×185×450 mm
- Net weight approx. 8 kg

For detailed information on the individual components, see the relevant product description of the individual item

Model KERN	Included camera	Camera Resolution	Camera Interface	Camera Framerate	Camera Sensor	Price excl. of VAT ex works € €
OBL 137C825	ODC 825	5,1 MP	USB 2.0	6,8 - 55 fps	CMOS 1/2,5"	**1660,–**
OBL 137C832	ODC 832	5,1 MP	USB 3.0	14,2 - 101,2 fps	CMOS 1/2,5"	**1810,–**
OBL 137T241	ODC 241	5 MP	WiFi, USB 2.0, HDMI, MicroSD card slot	30 fps	Sony CMOS 1/2,8"	**2260,–**



OBN 135 + ODC 825/832



OBN 135 + ODC 251



OBN 139 + ODC 251



OCM 162 + ODC 251

The digital laboratory assistant with infinity optical unit and professional Koehler illumination

Features

- The KERN ODC 251 microscope tablet camera is now also available as a complete digital solution in a practical set with microscope and matching C-mount adapter
- The intuitive KERN ODC 251 microscope tablet camera combines an Android tablet with a 10.5" HD display and a high-resolution 8 MP 4K camera
- The mounted C-mount camera is available in different versions and can be used anywhere
- The sets include either a KERN OBN 135 transmitted light microscope, a KERN OBN 159 phase contrast microscope or a KERN OCM 162inverted microscope
- A protective dust cover, eye cups, as well as multi-lingual user instructions are included in the scope of delivery

Technical data

- Infinity optical system
- Quintuple nosepiece
- Diopter adjustment, both-sided
- Overall dimensions W×D×H 390×200×470 mm
- Net weight approx. 11 kg
- Eyepiece: HWF 10x/Ø 20 mm
- Objective quality: Infinity Plan

OBN-1
- Siedentopf 30° inclined/360° rotatable
- Objectives : 4x/10x/20x/40x/100x
- Illumination: 3 W LED (transmitted)

OCM-1
- Siedentopf 30° inclined
- Objectives: 10x/20x/40x
- Illumination: 5 W LED (transmitted)

ODC 251
- 10,5" LCD-Touchscreen
- Screen resolution: 1920×1280 pixels
- CPU: Quad Core Cortex-A17; 1,8 GHz
- Measuring software (pre-installed)

For detailed information on the individual components, see the relevant product description of the individual item

Model	Included camera	Camera Resolution	Camera Interface	Camera Framerate	Camera Sensor	Price excl. of VAT ex works €
KERN						
OBN 135C825	ODC 825	5,1 MP	USB 2.0	6,8 - 55 fps	CMOS 1/2,5"	**2090,–**
OBN 135C832	ODC 832	5,1 MP	USB 3.0	14,2 - 101,2 fps	CMOS 1/2,5"	**2240,–**
OBN 135T251 NEW	ODC 251	8 MP 4 K	Ethernet, Bluetooth, WiFi, USB 2.0, USB 3.0, HDMI	30 fps	CMOS 1/1,8"	**2900,–**
OBN 159T251 NEW						**4150,–**
OCM 162T251 NEW						**4950,–**

NEW New model



OBN 142C861

NEW



OBN 142T251

Fluorescence digital set: high-resolution image quality for complex analyses

Features

- The KERN OBN 142 fluorescence microscope is now also available as a complete digital solution in a practical set with camera and matching C-mount adapter. It combines high-quality optics with a stable design and 3 W LED transmitted illumination and 5 W LED epifluorescence incident illumination for excellent image quality
- The sets include either a KERN ODC 861 20 MP fluorescence camera or a KERN ODC 251 tablet microscope camera, see table for details
- The high-resolution KERN ODC 861 20 MP fluorescence camera with cooling enables razor-sharp and low-noise images
- The intuitive KERN ODC 251 microscope tablet camera combines an Android tablet with a 10.5" HD display and a high-resolution 8 MP 4K camera
- The C-mount adapter provides the right connection between microscope and camera, enabling stable, high-resolution image transmission

Technical data

OBN 142
- Quintuple nosepiece
- Infinity optical system
- Siedentopf 30° inclined/360° rotatable
- Diopter adjustment, both-sided
- Eyepiece: HWF 10x/Ø 20 mm
- Overall dimensions W×D×H 390×235×620 mm
- Net weight approx. 11 kg

ODC 861
- 20 MP fluorescence camera with Peltier cooling
- Maximum resolution 5440×3648 Pixel
- Microscope software VIS Pro, see *internet*

ODC 251
- 10,5" LCD-Touchscreen
- Screen resolution: pixels 1920×1280
- CPU: Quad Core Cortex-A17; 1,8 GHz
- Measuring software (pre-installed)

For detailed information on the individual components, see the relevant product description of the individual item

Model		Included camera	Camera Resolution	Camera Interface	Camera Framerate	Camera Sensor	Price excl. of VAT ex works €
KERN							
OBN 142C861	NEW	ODC 861	20 MP	USB 3.0	5 - 30 fps	Sony CMOS 1"	**8850,–**
OBN 142T251	NEW	ODC 251	8 MP 4 K	Ethernet, Bluetooth, WiFi, USB 2.0, USB 3.0, HDMI	30 fps	CMOS 1/1,8"	**7750,–**

NEW New model



OKO 178C832

NEW



OKO 178T251

Digital set with metallurgical microscope, camera and C-mount adapter

Features

- The KERN OKO 178 metallurgical microscope is now also available as a complete digital solution in a practical set with the KERN ODC 832 C-mount camera or the KERN ODC 251 tablet microscope camera and matching C-mount adapter
- The KERN OKO 178 is a professional and versatile metallurgical microscope for testing metals and analysing surfaces
- The KERN ODC 832 5.1 MP microscope camera with CMOS technology delivers clear and fast images and is also suitable for complex applications
- The intuitive KERN ODC 251 microscope tablet camera combines an Android tablet with a 10.5" HD display and a high-resolution 8 MP 4K camera

Technical data

OKO 178
- Infinity optical system
- Quintuple nosepiece
- Diopter adjustment, both-sided
- Siedentopf 30° inclined/360° rotatable
- Overall dimensions W×D×H 390×235×620 mm
- Net weight approx. 11 kg

ODC 832
- Exposure method: Rolling Shutter
- Maximum resolution 2592×1944 Pixel
- Microscope software VIS Pro, see *internet*

ODC 251
- 10,5" LCD-Touchscreen
- Screen resolution: pixels 1920×1280
- CPU: Quad Core Cortex-A17; 1,8 GHz
- Measuring software (pre-installed)

For detailed information on the individual components, see the relevant product description of the individual item

Model		Included camera	Camera Resolution	Camera Interface	Camera Framerate	Camera Sensor	Price excl. of VAT ex works €
KERN							
OKO 178C832	NEW	ODC 832	5,1 MP	USB 3.0	14,2 - 101,2 fps	Aptina CMOS 1/2,5"	**3900,–**
OKO 178T251	NEW	ODC 251	8 MP 4 K	Ethernet, Bluetooth, WiFi, USB 2.0, USB 3.0, HDMI	30 fps	CMOS 1/1,8"	**4600,–**

NEW New model



OZL 464 + ODC 825/832



OZL 466 + ODC 825/832



OZL 468 + ODC 825/832



OZL 464 + ODC 241



OZL 466 + ODC 241



OZL 468 + ODC 241

The flexible, affordable all-rounder with zoom function as a digital solution for schools, training companies, inspection authorities and laboratories.

Features

- The flexible, cost-effective OZL-46 range is also available to you as a comprehensive digital solution for your live investigations. Optionally available with an adapted tablet or C-mount camera. Naturally, the appropriate C-mount adapter is included with the delivery
- The mounted KERN ODC 241 tablet-camera has been specially developed for simple, convenient and direct investigation of the sample on the screen. Ideally suited for school pupils and students in education or for demonstration purposes in the laboratory
- The mounted C-mount camera is available in different versions and can be used anywhere
- A protective dust cover, eye cups, as well as multi-lingual user instructions are included in the scope of delivery

Technical data

- Optical system: Greenough optics
- Tube 45° inclined
- Magnification ratio 6,4:1
- Beam path distribution: 0:100
- Interpupillary distance: 55 mm – 75 mm
- Diopter adjustment, both-sided
- Eyepiece: HWF 10x/Ø 20 mm
- Field of view: Ø 28,6 mm – 4,4 mm
- Objective: 0,7x – 4,5x
- OZL 464/466: Stand: pillar
- OZL 468: Stand: mechanical
- Illumination: 3 W-LED (reflected light and transmitted light)
- Brightness adjustable (separate)
- Overall dimensions W×D×H 300×240×490 mm
- Net weight approx. 5,0 kg

For detailed information on the individual components, see the relevant product description of the individual item

Model KERN	Included camera	Camera Resolution	Camera Interface	Camera Framerate	Camera Sensor	Price excl. of VAT ex works € €
OZL 464C825	ODC 825	5,1 MP	USB 2.0	6,8 - 55 fps	CMOS 1/2,5"	**1140,–**
OZL 466C825						**1160,–**
OZL 468C825						**1140,–**
OZL 464C832	ODC 832	5,1 MP	USB 3.0	14,2 - 101,2 fps	CMOS 1/2,5"	**1290,–**
OZL 466C832						**1310,–**
OZL 468C832						**1290,–**
OZL 464T241	ODC 241	5 MP	WiFi, USB 2.0, HDMI, MicroSD card slot	30 fps	Sony CMOS 1/2,8"	**1740,–**
OZL 466T241						**1760,–**
OZL 468T241						**1740,–**



OZM + ODC 825/832



OZP + ODC 825/832



OZP + ODC 241

First-class optics as well as strong illumination combined with a high level of flexibility and digital tools

Features

- The stereo microscopes of the OZM- and OZP range are available to you as a comprehensive digital solution for your live investigations. Optionally available with an mounted tablet or C-mount camera. Naturally, the appropriate C-mount adapter is included with the delivery
- The mounted KERN ODC 241 tablet-camera has been specially developed for simple, convenient and direct investigation of the sample on the screen. Ideally suited for school pupils and students in education or for demonstration purposes in the laboratory
- The mounted C-mount camera is available in different versions and can be used anywhere
- A protective dust cover, eye cups, as well as multi-lingual user instructions are included in the scope of delivery

Technical data

- Optical system: Greenough optics
- Beam path distribution: 0:100
- Interpupillary distance: 52 mm – 76 mm
- Diopter adjustment, both-sided
- Net weight approx. 6 kg
- Eyepiece: HSWF 10x/Ø 23 mm
- Stand: pillar
- Illumination: 3 W-LED (reflected light and transmitted light), Brightness adjustable (separate)

OZM 544

- Tube 45° inclined
- Magnification ratio 6,4:1
- Field of view: Ø 32,8 mm – 5,1 mm
- Objective: 0,7x – 4,5x
- Overall dimensions W×D×H 330×285×510 mm

OZP 558

- Tube 35° inclined
- Magnification ratio 9,2:1
- Field of view: Ø 38,3 mm – 4,2 mm
- Objective: 0,6x – 5,5x
- Overall dimensions W×D×H 330×285×540 mm

For detailed information on the individual components, see the relevant product description of the individual item

Model KERN	Included camera	Camera Resolution	Camera Interface	Camera Framerate	Camera Sensor	Price excl. of VAT ex works €
OZM 544C825	ODC 825	5,1 MP	USB 2.0	6,8 - 55 fps	CMOS 1/2,5"	**2250,–**
OZM 544C832	ODC 832	5,1 MP	USB 3.0	14,2 - 101,2 fps	CMOS 1/2,5"	**2410,–**
OZP 558C825	ODC 825	5,1 MP	USB 2.0	6,8 - 55 fps	CMOS 1/2,5"	**2330,–**
OZP 558C832	ODC 832	5,1 MP	USB 3.0	14,2 - 101,2 fps	CMOS 1/2,5"	**2480,–**
OZP 558T241	ODC 241	5 MP	WiFi, USB 2.0, HDMI, MicroSD card slot	30 fps	Sony CMOS 1/2,8"	**2930,–**

7

STEREO MICROSCOPE SETS





OZM 912/913



OZM 932/933



OZM 952/953



OZM 982/983

Predefined stereo microscope sets with PREMIUM universal stand and illumination for your functional workplace

Features

- Sets which have already been defined, consisting of a stereo microscope head, a universal stand, a holder, a ring illumination and a dust cover from our range
- Simple – convenient – affordable
- This saves you spending time on configuration and being spoilt for choice in the combination of different components. In this way you get an in expensive and highly-flexible solution for your microscope workplace

Model	Microscope head		Stand	Holder	Illumination	Price excl. of VAT ex works €
KERN	Tube	Objective Zoom				
OZM 912	Binocular (OZM 546)	0,7x - 4,5x	Telescopic arm with plate (OZB-A5201)	With coarse focusing knob Adjustable torque on the hand wheels (OZB-A5301)	4,5 W LED ring light (OBB-A6102)	**1750,–**
OZM 913	Trinocular (OZM 547)	0,7x - 4,5x	Telescopic arm with plate (OZB-A5201)	With coarse focusing knob Adjustable torque on the hand wheels (OZB-A5301)	4,5 W LED ring light (OBB-A6102)	**2090,–**
OZM 932	Binocular (OZM 546)	0,7x - 4,5x	Ball-beared double telescopic arm with plate (OZB-A5203)	With coarse focusing knob Adjustable torque on the hand wheels (OZB-A5301)	4,5 W LED ring light (OBB-A6102)	**2080,–**
OZM 933	Trinocular (OZM 547)	0,7x - 4,5x	Ball-beared double telescopic arm with plate (OZB-A5203)	With coarse focusing knob Adjustable torque on the hand wheels (OZB-A5301)	4,5 W LED ring light (OBB-A6102)	**2420,–**
OZM 952	Binocular (OZM 546)	0,7x - 4,5x	Jointed arm with clamp (OZM-A5212)	With coarse focusing knob Adjustable torque on the hand wheels (OZB-A5301)	4,5 W LED ring light (OBB-A6102)	**1750,–**
OZM 953	Trinocular (OZM 547)	0,7x - 4,5x	Jointed arm with clamp (OZM-A5212)	With coarse focusing knob Adjustable torque on the hand wheels (OZB-A5301)	4,5 W LED ring light (OBB-A6102)	**2090,–**
OZM 982	Binocular (OZM 546)	0,7x - 4,5x	Spring loaded arm with clamp (OZB-A6302)	With coarse focusing knob Adjustable torque on the hand wheels	4,5 W LED ring light (OBB-A6102)	**1870,–**
OZM 983	Trinocular (OZM 547)	0,7x - 4,5x	Spring loaded arm with clamp (OZB-A6302)	With coarse focusing knob Adjustable torque on the hand wheels	4,5 W LED ring light (OBB-A6102)	**2210,–**



OSE 409



OZL 961/963



OZM 902/903



OZM 922/923

7

Predefined stereo microscope sets with ECO universal stand and illumination for your functional workplace

Features

- OSE 409: The KERN OSE 409 is an extremely robust, stable stereo microscope which is easy to use, it is ideal for all conventional applications in schools, workshops and training companies.
- OZL-9/OZM-9: Sets which have already been defined, consisting of a stereo microscope head, a universal stand, a holder, a ring illumination and a dust cover from our range
- Simple – convenient – affordable
- This saves you spending time on configuration and being spoilt for choice in the combination of different components. In this way you get an in expensive and highly-flexible solution for your microscope workplace

Model	Microscope head		Stand	Holder	Illumination	Price excl. of VAT ex works €
KERN	Tube	Objective Zoom				
OSE 409	Binocular (WF 10x/ Ø 20 mm)	1x (WD: 230 mm)	Swivel arm with block pedestal	With coarse focusing knob Adjustable torque on the hand wheels	3 W LED goose neck (integrated)	**440,–**
OZL 961	Binocular (OZL 461)	0,7x - 4,5x	Telescopic arm with plate	With coarse focusing knob Adjustable torque on the hand wheels	4,5 W LED ring light (OBB-A6102)	**950,–**
OZL 963	Trinocular (OZL 462)	0,7x - 4,5x	Telescopic arm with plate	With coarse focusing knob Adjustable torque on the hand wheels	4,5 W LED ring light (OBB-A6102)	**990,–**
OZM 902	Binocular (OZM 546)	0,7x - 4,5x	Telescopic arm with plate (OZB-A1201)	With coarse focusing knob Adjustable torque on the hand wheels (OZB-A5301)	4,5 W LED ring light (OBB-A6102)	**1560,–**
OZM 903	Trinocular (OZM 547)	0,7x - 4,5x	Telescopic arm with plate (OZB-A1201)	With coarse focusing knob Adjustable torque on the hand wheels (OZB-A5301)	4,5 W LED ring light (OBB-A6102)	**1900,–**
OZM 922	Binocular (OZM 546)	0,7x - 4,5x	Ball-beared double telescopic arm with plate (OZB-A1203)	With coarse focusing knob Adjustable torque on the hand wheels (OZB-A5301)	4,5 W LED ring light (OBB-A6102)	**1610,–**
OZM 923	Trinocular (OZM 547)	0,7x - 4,5x	Ball-beared double telescopic arm with plate (OZB-A1203)	With coarse focusing knob Adjustable torque on the hand wheels (OZB-A5301)	4,5 W LED ring light (OBB-A6102)	**1950,–**

8

STEREO MICROSCOPES MODULAR SYSTEM









SIMPLY CONFIGURE IT YOURSELF!

With our convenient modular system (for stereomicroscopes), you can easily put together your own individual microscope model. This is how easy it is.

Step 1: You make your choice

Select a microscope head, a universal stand, a holder and an illumination unit and configure your own personal model to suit you.



Microscope head
▸ P. 77 onwards

Universal stand
▸ P. 82 onwards

Holder
▸ P. 84

Ring light
▸ P. 86

Your ideal microscope

Sample configuration

Step 2: You add fittings – (external) illumination unit + other items

Additional illumination units and an appropriate protective dust cover offer you the opportunity to adapt the configuration, expansion and field of application of your ideal microscope individually to suit your own requirements.



Swan neck lighting unit
▸ P. 86



Polarisation ring light
▸ P. 86



Protective dust cover
▸ P. 84

Step 3: You perfect your model – microscope cameras

If you are using a trinocular microscope configuration, select the microscope camera which meets your requirements. To find the appropriate C-mount adapter, which is essential to correctly connect the camera, please see the fitting lists of the selected microscope head (from page 75 ff.).





C-mount cameras
▸ P. 87



Eyepiece camera
▸ P. 90

DONE!



Head of the microscope series OZL-46 (OZL 461, 462)



Head of the microscope series OZM-5 (OZM 546, 547)



Head of the microscope series OZP-5 (OZP 551, 552)



Head of the microscope series OZO-5 (OZO 556)

Individuality, variety and flexible working through our modular construction system – Stereo microscope heads

Features

- To enable the highest level of flexibility for your special requirements and applications, we have a large selection of stereo microscope heads, universal stands and external illumination units, which are easy to combine
- Through the different properties of the stereo microscope heads, as well as the flexibility of the universal stands and the professional fixing of our brackets, we can configure your ideal microscope to suit your needs
- There are various microscope heads available from our product range for this purpose, both as binocular or trinocular versions
- A C-mount adapter is required to connect a camera to the trinocular version. You can select this adapter from the corresponding model outfit lists on the following pages

Technical data

- Optical system: Greenough optics
- Further technical data and model features is located in the tables below on the following pages

Model	Tube	Tube angle	Eyepieces (included)	Interpupilary distance	Objective	Magnification ratio	Diopter adjustment	Price excl. of VAT ex works €
KERN					Zoom	Zoom		
OZL 461	Binocular	45°	HWF 10x/ø 20 mm	55 – 75 mm	0,7x – 4,5x	6,4:1	Both-sided (-5/5)	**470,–**
OZL 462	Trinocular	45°	HWF 10x/ø 20 mm	52 – 76 mm	0,7x – 4,5x	6,4:1	Both-sided (-5/5)	**540,–**
OZM 546	Binocular	45°	HSWF 10x/ø 23 mm	52 – 76 mm	0,7x – 4,5x	6,4:1	Both-sided (-6/6)	**930,–**
OZM 547	Trinocular	45°	HSWF 10x/ø 23 mm	52 – 76 mm	0,7x – 4,5x	6,4:1	Both-sided (-6/6)	**1280,–**
OZP 551	Binocular	35°	HSWF 10x/ø 23 mm	52 – 76 mm	0,6x – 5,5x	9,2:1	Both-sided (-6/6)	**1040,–**
OZP 552	Trinocular	35°	HSWF 10x/ø 23 mm	52 – 76 mm	0,6x – 5,5x	9,2:1	Both-sided (-6/6)	**1400,–**
OZO 556*	Binocular	35°	HSWF 10x/ø 23 mm	52 – 76 mm	0,8x – 7x	8,8:1	Both-sided (-6/6)	**1150,–**

! *ONLY WHILE STOCKS LAST

Eyepiece	Specifications – Objectives					
	Magnification	**Standard**	**Auxiliary objectives**			
		1,0x	**0,5x**	**0,75x**	**1,5x**	**2,0x**
HSWF 10x	Total magnification	7x – 45x	3,5x – 22,5x	5,3x – 33,8x	10,5x – 67,5x	14x – 90x
	Field of view mm	⌀ 28,6 – 4,4	⌀ 57,1 – 8,9	⌀ 38,1 – 5,9	⌀ 19 – 3	⌀ 14,3 – 2,2
HWF 15x	Total magnification	10,5x – 67,5x	5,3x – 33,8x	7,9x – 50,6x	15,5x – 101,3x	21x – 135x
	Field of view mm	⌀ 21,4 – 3,3	⌀ 42,9 – 6,7	⌀ 28,5 – 4,4	⌀ 14,3 – 2,2	⌀ 10,7 – 1,7
HSWF 20x	Total magnification	14x – 90x	7x – 45x	10,5x – 67,5x	21x – 135x	28x – 180x
	Field of view mm	⌀ 14,3 – 2,2	⌀ 28,6 – 4,4	⌀ 19,1 – 2,9	⌀ 9,5 – 1,5	⌀ 7,1 – 1,1
HWF 25x	Total magnification	17,5x – 122,5x	8,8x – 56,3x	13,1x – 91,9x	26,3x – 168,8x	35x – 225x
	Field of view mm	⌀ 12,9 – 2,0	⌀ 25,7 – 4,0	⌀ 17,2 – 2,7	⌀ 8,6 – 1,3	⌀ 6,4 – 1,0
Working distance		105 mm	177 mm	120 mm	47 mm	26 mm

Model outfit		**Model KERN**		**Order number**	**Price**/piece excl. of VAT ex works **€**
		OZL 461	**OZL 462**		
Eyepieces (30,0 mm)	HWF 10x/⌀ 20 mm	✓✓	✓✓	OZB-A4631	**45,–**
	HSWF 15x/⌀ 15 mm	○○	○○	OZB-A4632	**55,–**
	HWF 20x/⌀ 10 mm	○○	○○	OZB-A4633	**55,–**
	HSWF 25x/⌀ 9 mm	○○	○○	OZB-A4634	**60,–**
Auxiliary objectives	0,5x	○	○	OZB-A4641	**90,–**
	0,75x	○	○	OZB-A4644	**90,–**
	1,5x	○	○	OZB-A4642	**90,–**
	2,0x	○	○	OZB-A4643	**90,–**
C-Mount	1x (focus adjustable)		✓	OZB-A4809	**55,–**
	0,3x (focus adjustable)		○	OZB-A4810	**95,–**
	0,5x (focus adjustable)		○	OZB-A4811	**105,–**

✓ = Included with delivery ○ = Option

Eyepiece	Specifications – Objectives						
	Magnification	**Standard**	**Auxiliary objectives**				
		1,0x	**0,37x**	**0,5x**	**0,7x**	**1,5x**	**2x**
HSWF 10x	Total magnification	7x – 45x	2,59x – 16,65x	3,5x – 22,5x	4,9x – 31,5x	10,5x – 67,5x	14x – 90x
	Field of view mm	⌀ 32,8 – 5,1	⌀ 88,8 – 13,8	⌀ 65,7 – 10,2	⌀ 46,9 – 7,3	⌀ 21,9 – 3,4	⌀ 16,4 – 2,6
SWF 15x	Total magnification	10,5x – 67,5x	3,89x – 25x	5,3x – 33,8x	7,4x – 47,2x	15,8x – 101,3x	21x – 135x
	Field of view mm	⌀ 24,3 – 3,8	⌀ 65,6 – 10,2	⌀ 48,6 – 7,6	⌀ 34,7 – 5,4	⌀ 16,2 – 2,5	⌀ 12,1 – 1,9
SWF 20x	Total magnification	14x – 90x	5,18x – 33,3x	7x – 45x	9,8x – 63x	21x – 135x	28x – 180x
	Field of view mm	⌀ 20 – 3,1	⌀ 54,1 – 8,4	⌀ 40 – 6,2	⌀ 28,6 – 4,4	⌀ 13,3 – 2,1	⌀ 10 – 1,6
SWF 30x	Total magnification	21x – 135x	7,77x – 50x	10,5x – 67,5x	14,7x – 94,5x	31,5x – 202,5x	42x – 270x
	Field of view mm	⌀ 12,9 – 2	⌀ 34,7 – 5,4	⌀ 25,7 – 4	⌀ 18,4 – 2,9	⌀ 8,6 – 1,6	⌀ 6,4 – 1
Working distance		110 mm	275 mm	195 mm	145 mm	58 mm	35 mm

Model outfit		**Model KERN**		**Order number**	**Price**/piece excl. of VAT ex works **€**
		OZM 546	**OZM 547**		
Eyepieces (30,0 mm)	HSWF 10x/⌀ 23 mm	✓✓	✓✓	OZB-A5503	**70,–**
	SWF 15x/⌀ 17 mm	○○	○○	OZB-A5504	**75,–**
	SWF 20x/⌀ 14 mm	○○	○○	OZB-A5505	**85,–**
	SWF 30x/⌀ 9 mm	○○	○○	OZB-A5506	**120,–**
	HSWF 10x/⌀ 23 mm (reticule 0,1 mm)	○	○	OZB-A5512	**125,–**
	SWF 15x/⌀ 17 mm (reticule 0,05 mm)	○	○	OZB-A5513	**140,–**
	SWF 20x/⌀ 14 mm (reticule 0,05 mm)	○	○	OZB-A5514	**140,–**
Achromatic auxiliary objectives	0,37x only in combination with a universal stand	○	○	OZB-A5611	**170,–**
	0,5x	○	○	OZB-A5612	**160,–**
	0,7x	○	○	OZB-A5613	**160,–**
	1,5x	○	○	OZB-A5615	**160,–**
	2,0x	○	○	OZB-A5616	**165,–**
	Soldering protection lens	○	○	OZB-A5614	**50,–**
C-Mount	0,3x (focus adjustable)		○	OZB-A5701	**140,–**
	0,5x (focus adjustable)		○	OZB-A5702	**140,–**
	1,0x (focus adjustable)		○	OZB-A5703	**105,–**
	1,0x (with micrometer) only in combination with OZB-A5703		○	OZB-A5704	**295,–**

✓ = Included with delivery ○ = Option

8

Eyepiece		Specifications – Objectives					
	Magnification	**Standard**	**Auxiliary objectives**				
		1,0x	**0,37x**	**0,5x**	**0,7x**	**1,5x**	**2x**
HSWF 10x	Total magnification	6x – 55x	2,96x – 25,9x	3x – 27,5x	4,2x – 38,5x	9x – 82,5x	12x – 110x
	Field of view mm	⌀ 38,3 – 4,2	⌀ 74,3 – 8,5	⌀ 76,7 – 8,4	⌀ 54,8 – 6	⌀ 25,6 – 2,8	⌀ 19,2 – 2,1
SWF 15x	Total magnification	9x – 82,5x	4,44x – 38,9x	4,5x – 41,25x	6,3x – 57,75x	13,5x – 123,75x	18x – 165x
	Field of view mm	⌀ 28,3 – 3,1	⌀ 57,4 – 6,6	⌀ 56,7 – 6,2	⌀ 40,5 – 4,4	⌀ 18,9 – 2,1	⌀ 14,2 – 1,5
SWF 20x	Total magnification	12x – 110x	5,92x – 51,8x	6x – 55x	8,4x – 77x	18x – 165x	24x – 220x
	Field of view mm	⌀ 23,3 – 2,5	⌀ 47,3 – 5,4	⌀ 46,7 – 5,1	⌀ 33,3 – 3,6	⌀ 15,6 – 1,7	⌀ 11,7 – 1,3
SWF 30x	Total magnification	18x – 165x	8,88x – 77,7x	9x – 82,5x	12,6x – 115,5x	27x – 247,5x	36x – 330x
	Field of view mm	⌀ 15 – 1,6	⌀ 30,4 – 3,5	⌀ 30 – 3,3	⌀ 21,4 – 2,3	⌀ 10 – 1,1	⌀ 7,5 – 0,8
Working distance		108 mm	275 mm	195 mm	145 mm	50 mm	35 mm

Model outfit		Model KERN		Order number	**Price**/piece excl. of VAT ex works **€**
		OZP 551	**OZP 552**		
Eyepieces (30,0 mm)	HSWF 10x/⌀ 23 mm	✓✓	✓✓	OZB-A5503	**70,–**
	SWF 15x/⌀ 17 mm	○○	○○	OZB-A5504	**75,–**
	SWF 20x/⌀ 14 mm	○○	○○	OZB-A5505	**85,–**
	SWF 30x/⌀ 9 mm	○○	○○	OZB-A5506	**120,–**
	HSWF 10x/⌀ 23 mm (reticule 0,1 mm)	○	○	OZB-A5512	**125,–**
	SWF 15x/⌀ 17 mm (reticule 0,05 mm)	○	○	OZB-A5513	**140,–**
	SWF 20x/⌀ 14 mm (reticule 0,05 mm)	○	○	OZB-A5514	**140,–**
Achromatic auxiliary objectives	0,37x only in combination with a universal stand	○	○	OZB-A5611	**170,–**
	0,5x	○	○	OZB-A5612	**160,–**
	0,7x	○	○	OZB-A5613	**160,–**
	1,5x	○	○	OZB-A5615	**160,–**
	2,0x	○	○	OZB-A5616	**165,–**
	Soldering protection lens	○	○	OZB-A5614	**50,–**
C-Mount	0,3x (focus adjustable)		○	OZB-A5701	**140,–**
	0,5x (focus adjustable)		○	OZB-A5702	**140,–**
	1,0x (focus adjustable)		○	OZB-A5703	**105,–**
	1,0x (with micrometer) only in combination with OZB-A5703		○	OZB-A5704	**295,–**

✓ = Included with delivery ○ = Option

Eyepiece		Specifications – Objectives					
	Magnification	**Standard**	**Auxiliary objectives**				
		1,0x	**0,37x**	**0,5x**	**0,7x**	**1,5x**	**2x**
HSWF 10x	Total magnification	8x – 70x	2,96x – 25,9x	4x – 35x	5,6x – 49x	12x – 105x	16x – 140x
	Field of view mm	⌀ 28,75 – 3,3	⌀ 74,3 – 8,5	⌀ 57,5 – 6,6	⌀ 41,1 – 4,7	⌀ 19,2 – 2,2	⌀ 14,4 – 1,6
SWF 15x	Total magnification	12x – 105x	4,44x – 38,9x	6x – 52,5x	8,4x – 73,5x	18x – 157,5x	24x – 210x
	Field of view mm	⌀ 21,25 – 2,4	⌀ 57,4 – 6,6	⌀ 42,5 – 4,9	⌀ 30,4 – 3,5	⌀ 14,2 – 1,6	⌀ 10,6 – 1,2
SWF 20x	Total magnification	16x – 140x	5,92x – 51,8x	8x – 70x	11,2x – 98x	24x – 210x	32x – 280x
	Field of view mm	⌀ 17,5 – 2	⌀ 47,3 – 5,4	⌀ 35 – 4	⌀ 25 – 2,9	⌀ 11,7 – 1,3	⌀ 8,75 – 1
SWF 30x	Total magnification	24x – 210x	8,88x – 77,7x	12x – 105x	16,8x – 147x	36x – 315x	48x – 420x
	Field of view mm	⌀ 11,25 – 1,3	⌀ 30,4 – 3,5	⌀ 22,5 – 2,6	⌀ 16,1 – 1,8	⌀ 7,5 – 0,9	⌀ 5,625 – 0,6
Working distance		108 mm	275 mm	195 mm	145 mm	50 mm	35 mm

Model outfit		Model KERN	Order number	**Price**/piece excl. of VAT ex works **€**
		OZO 556		
Eyepieces (30,0 mm)	HSWF 10x/⌀ 23 mm	✓✓	OZB-A5503	**70,–**
	SWF 15x/⌀ 17 mm	○○	OZB-A5504	**75,–**
	SWF 20x/⌀ 14 mm	○○	OZB-A5505	**85,–**
	SWF 30x/⌀ 9 mm	○○	OZB-A5506	**120,–**
	HSWF 10x/⌀ 23 mm (reticule 0,1 mm)	○	OZB-A5512	**125,–**
	SWF 15x/⌀ 17 mm (reticule 0,05 mm)	○	OZB-A5513	**140,–**
	SWF 20x/⌀ 14 mm (reticule 0,05 mm)	○	OZB-A5514	**140,–**
Achromatic auxiliary objectives	0,37x only in combination with a universal stand	○	OZB-A5611	**170,–**
	0,5x	○	OZB-A5612	**160,–**
	0,7x	○	OZB-A5613	**160,–**
	1,5x	○	OZB-A5615	**160,–**
	2,0x	○	OZB-A5616	**165,–**
	Soldering protection lens	○	OZB-A5614	**50,–**
C-Mount	0,3x (focus adjustable)		OZB-A5701	**140,–**
	0,5x (focus adjustable)		OZB-A5702	**140,–**
	1,0x (focus adjustable)		OZB-A5703	**105,–**
	1,0x (with micrometer) only in combination with OZB-A5703		OZB-A5704	**295,–**

✓ = Included with delivery ○ = Option


OZB-A5201


OZB-A5203


OZB-A5211


OZB-A5212


OZB-A5213


OZB-A5221


OZB-A5222


OZB-A5223

PREMIUM universal stands

Features

- With our universal stands and basic stands, as well as microscope heads and external illumination units, you can configure your microscope to your own specifications and adapt it to your application
- Thanks to the versatile, adjustable universal stands it is possible to work in the very best way in all areas with the most varied of samples
- Large universal stands are available as stand base variants as well as with the option of a clamp for the edge or the centre of a bench. Depending on the model, you have the choice of a telescopic arm stand, a jointed arm stand or a telescopic double arm universal stand with ball bearings

Technical data

- Column height: 470 mm

OZB-A5201/OZB-A5211/OZB-A5221
- Length telescopic arm: 614 mm

OZB-A5212/OZB-A5222
- Length jointed arm: 755 mm

OZB-A5203/OZB-A5213/OZB-A5223
- Length double arm: 545 mm

Model KERN	Description	Price excl. of VAT ex works € €
OZB-A5201	Telescopic arm – Plate – excl. holder	**590,–**
OZB-A5211	Telescopic arm – Clamp Edge of bench (Range: max. 62 mm) – excl. holder	**550,–**
OZB-A5221	Telescopic arm – Clamp Centre of bench (hole required) – excl. holder	**590,–**
OZB-A5212	Jointed arm – Clamp Edge of bench (Range: max. 62 mm) – excl. holder	**590,–**
OZB-A5222	Jointed arm – Clamp Centre of bench (hole required) – excl. holder	**620,–**
OZB-A5203	Telescopic double arm with ball bearings – Plate – excl. holder	**920,–**
OZB-A5213	Telescopic double arm with ball bearings – Clamp Edge of bench (Range: max. 62 mm) – excl. holder	**890,–**
OZB-A5223	Telescopic double arm with ball bearings – Clamp Centre of bench (hole required) – excl. holder	**930,–**



OZB-A1201



OZB-A1203



OZB-A6302



OZB-A1211



OZB-A1213



OZB-A6303



OZB-A6301

ECO universal stands

Features

- With our universal stands and basic stands, as well as microscope heads and external illumination units, you can configure your microscope to your own specifications and adapt it to your application
- Thanks to the versatile, adjustable universal stands it is possible to work in the very best way in all areas with the most varied of samples
- Small universal stands are available as stand base variants as well as with the option of a clamp for the edge of a bench. Depending on the model, you have the choice of a telescopic arm stand or a telescopic double arm universal stand with ball bearings
- The spring loaded universal stands including bench clamp will make your daily work with your stereo microscope easier. Now including coarse adjustment knob for easy, flexible focussing

Technical data

OZB-A1201/OZB-A1211
- Column height: 430 mm
- Length telescopic arm: 385 mm

OZB-A1203/OZB-A1213
- Column height: 430 mm
- Length telescopic arm: 480 mm

OZB-A6302
- Height spring loaded arm: 525 mm
- Length spring loaded arm: 620 mm

OZB-A6301
- Column height: 300 mm

OZB-A6303
- Height spring loaded arm: 400 mm
- Length spring loaded arm: 850 mm

Model KERN	Description	Price excl. of VAT ex works €
OZB-A1201	Telescopic arm – Plate – excl. holder	**400,–**
OZB-A1211	Telescopic arm – Clamp Edge of bench (Range: max. 40 mm) – excl. holder	**370,–**
OZB-A1203	Jointed arm – Plate – excl. holder	**445,–**
OZB-A1213	Jointed arm – Clamp Edge of bench (Range: max. 40 mm) – excl. holder	**420,–**
OZB-A6302	Spring loaded arm (Pneumatic spring) – Clamp (Range: max. 50 mm) – with holder (Coarse focusing knob)	**860,–**
OZB-A6303	Spring loaded arm (Compression spring) – Clamp (Range: max. 50 mm) – with holder (Coarse focusing knob)	**540,–**
OZB-A6301	Pillar style stand with “C”-shape base – excl. holder	**360,–**



OZB-A5301



OZB-A5306

Holders

Features

- There are two microscope head holders available for these flexible, modular systems. These brackets are suitable for all stereo microscope stands and universal stands (excluding spring loaded arm), to make focusing possible
- The first variant available is a holder with adjustable handwheel as well as adjustment of the torque for your configuration
- For professional applications you have the choice of a mount with coarse and fine focusing knob for the very best focusing operation
- Diameter of the connector for the microscope head: 76 mm
- Diameter of the connector for the stand: 25 mm

8

Model KERN	Description	Price excl. of VAT ex works €
OZB-A5301	Holder with adjustable torque of the hand wheel. Suitable for all universal stands (except of spring loaded arm) and for all basic stands as possible accessories.	**180,–**
OZB-A5306	Holder with coaxial coarse and fine focusing knob and adjustable torque of the hand wheel. Suitable for all universal stands (except of spring loaded arm) and for all basic stands as possible accessories.	**300,–**



Dust covers

Features

- When working with microscopes, we offer dust covers to give greater ease of use. By using these, you can easily avoid the time-consuming cleaning work which is necessary with routine use of your microscope
- Depending on the size of your microscope set or your microscope configuration you can select between three different models
- Please find detailed information in the following model outfit list

Model KERN	Description	Suitable for	Price excl. of VAT ex works €
OBB-A1387	Size 1: 485×450 mm	Stereo microscope heads	**35,–**
OBB-A1388	Size 2: 600×650 mm	Stereo microscope heads in combination with basic stands	**35,–**
OBB-A1389	Size 3: 700×900 mm	Stereo microscope sets, stereo microscope heads in combination with universal stands	**35,–**

9

EXTERNAL LIGHT SOURCES FOR STEREO MICROSCOPES

Ring illumination and cold light sources



Professional illumination units guarantee outstanding, uniform and strong illumination

Tip: These illumination units are also available with UK mains plug. For more information on this, visit our online shop or give us a ring



OZB-A4571



OZB-A4572



OBB-A6102



OZB-A7101

Features

- Choose your favourite external illumination here to achieve maximum flexibility and greatest possible ease of use in stereo microscopy
- These professional illumination units provide a quality of light at a high, constant intensity at all times
- Regardless of whether your choice is space-saving ring lights or cold light sources using optical fiber, our range is all you can wish for
- With the **OZB-A7101** polarisation ring illumination unit, you also have an excellent component which has been specially optimised for observing shiny surfaces
- Naturally, these external illumination units also fit your standard stereo microscope
- Exception: The ring illumination units cannot be used in combination with the following ranges: OSE-1, OSF-4G, OZL-45R, OZC-5 and OZG-4

9

Model	Illuminance	Inner ⌀	Colour temperature	Brightness adjustable	Illumination by segments	Polarising filter	Price excl. of VAT ex works
KERN		mm	K				€
OZB-A4571	4W-LED	60	7000 – 11000	✓			**100,–**
OZB-A4572	4W-LED	60	6500 – 7000	✓	✓		**155,–**
OBB-A6102	4,5W-LED	63	5500	✓			**150,–**
OZB-A7101	4,5W-LED	62	6500 – 7000	✓		✓	**690,–**

✓ = Included with delivery

Goose Neck Illumination KERN OZB-IF



OZB-A4516



OZB-A4515



Application example

Features

- With the **OZB-A4516** 20 W-LED Goose Neck Illumination Unit with focusable light beam, you can adjust the illumination to suit your needs. Spot or scattered radiation means that you can achieve the very best illumination of your sample

Model	Description	Length	Illuminance	Colour temperature	Brightness adjustable	Price excl. of VAT ex works
KERN		mm		K		€
OZB-A4515	Dual Goose Neck Illumination LED Unit	300	6W	5600 – 6300	✓	**165,–**
OZB-A4516	Dual Goose Neck Illumination LED Cold Light Source	540	20W	6400	✓	**720,–**

✓ = Included with delivery

10

MICROSCOPE CAMERAS & SOFTWARE

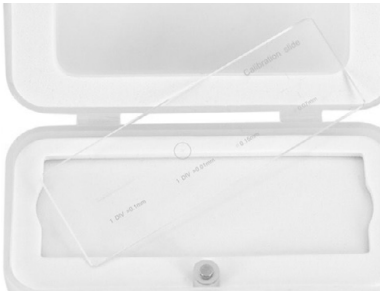


Microscope Cameras KERN ODC – Specialists in microscopy for measurement, counting, documentation, archiving and image processing

A large selection of microscope cameras is available for your individual applications. The universal microscope cameras can be used anywhere and can be connected to the microscope as well as to a laptop or PC using the USB cable (USB 2.0 or USB 3.0, *see table*). The power supply is through the USB cable, which means that no additional power supply is required.

Your daily work is made significantly easier with the very best synchronisation, a high frame rate as well as stable image performance together with our accompanying Camera Software Microscope VIS KERN OXM 901. For details about our software please refer to the *Camera Software Microscope* product group in the catalogue or see www.kern-sohn.com

These universal cameras can also be connected to all microscopes available on the market offering the appropriate C-mount adapter for the particular microscope.



Accessories: Object micrometer, for calibrating the software measuring function, KERN ODC-A2404, **€ 45,–**

C-Mount Cameras – USB 2.0/3.0 KERN ODC-82 · ODC-83



Features

- Through the proven CMOS technology, in connection with the USB 2.0 or USB 3.0 the images are shown quickly and clearly
- These cameras are also ideal for more demanding applications, such as, for example, darkfield, phase contrast and for fluorescence applications

- As well as the camera, the delivery includes an USB cable (length: 2 m), various eyepiece adapters and an object micrometre to calibrate the software
- Please order the appropriate C-mount adapter to fit your KERN microscope now

STANDARD

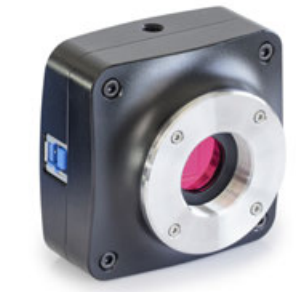


10

Model KERN	Resolution	Interface	FPS	Sensor	Sensor size	Colour/ Monochrome	Supported operating system	Price excl. of VAT ex works € €
ODC 825	5,1 MP	USB 2.0	6,8 – 55	CMOS	1/2,5"	colour	Win XP, Vista, 7, 8, 10, 11	**410,–**
ODC 831*	3,1 MP	USB 3.0	27,3 – 53,3	CMOS	1/3"	colour	Win XP, Vista, 7, 8, 10, 11	**530,–**
ODC 832	5,1 MP	USB 3.0	14,2 – 101,2	CMOS	1/2,5"	colour	Win XP, Vista, 7, 8, 10, 11	**560,–**

! * ONLY WHILE STOCKS LAST

C-Mount Camera – High Resolution KERN ODC-84



Features

- The high-resolution, professional ODC-84 range offers you an impressive 20 megapixel resolution which will give you bright detailed views of your sample. By using the integrated USB 3.0 interface, live images are transferred to the KERN OXM 902 for processing and documentation
- Power supply is through the USB interface so that there is no requirement for an external power source.

- As well as the camera, the delivery includes an USB cable (length: 2 m), various eyepiece adapters and an object micrometre to calibrate the software
- Please order the appropriate C-mount adapter (only 1,0x possible) to fit your KERN microscope now

Note: Can only be used in combination with compound microscopes

STANDARD



Model KERN	Resolution	Interface	FPS	Sensor	Sensor size	Colour/ Monochrome	Supported operating system	Price excl. of VAT ex works € €
ODC 841	20 MP	USB 3.0	15 – 60	CMOS	1"	colour	Win XP, Vista, 7, 8, 10, 11	**1200,–**

C-Mount Camera – HDMI KERN ODC-85



Features

- The ODC 851 HDMI microscope camera has been specially developed for direct HDMI connection to your HDMI compatible display device. The images can be stored straight onto the SD card which is delivered with the product or can be transferred to your PC or laptop for further processing using the USB 2.0 cable in combination with the OXM 902 software
- The HDMI autofocus camera ODC 852 offers you a perfect, effective solution for modern microscopy. The autofocus function automatically detects and adjusts the focus level so that you always have a razor-sharp image. Ideal for all applications in connection with a KERN stereo microscope
- Realtime images can be transferred to an HDMI-compatible display device using the HDMI connection and they can also be stored on the SD card which was delivered with the product. As an alternative, data can also be transferred using the WiFi module (ODC 852) to a PC or laptop in combination with the software KERN Microscope VIS which is included with the delivery
- Power supply is from an external 12 V power unit
- Scope of delivery ODC 851: Camera, USB mouse, USB 2.0 cable (length: 2 m), HDMI cable (length: 2 m), SD card (16 GB)
- Scope of delivery ODC 852: Camera, USB mouse, HDMI cable (length: 2 m), SD card (16 GB), WiFi adapter and camera software Microscope VIS Pro KERN OXM 902
- Please order the appropriate C-mount adapter to fit your KERN microscope now

STANDARD



Model KERN	Resolution	Interface	FPS	Sensor	Sensor size	Colour/ Monochrome	Supported operating system	Price excl. of VAT ex works € KERN
ODC 851*	2 MP	HDMI, USB 2.0, SD	60	CMOS	1/2"	colour	Win XP, Vista, 7, 8, 10, 11	**880,–**
ODC 852	5 MP	HDMI, SD, WLAN	25 – 60	CMOS	1/1,8"	colour	Win XP, Vista, 7, 8, 10, 11	**1100,–**

! * ONLY WHILE STOCKS LAST

10

4K Camera – KERN ODC-854

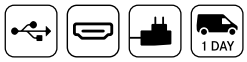
NEW



Features

- Self-contained 4K microscope camera with state-of-the-art Sony sensor – optionally with HDMI and USB or additionally with WLAN for maximum integration flexibility
- 4K resolution (3840 × 2160) at 30 fps for razor-sharp live images in real time
- High-performance Sony IMX678 CMOS colour sensor for outstanding image quality and high light sensitivit
- Large sensor surface (1/1,8") enables detailed and bright images
- Large pixel size (2,0 µm × 2,0 µm) ensures an excellent signal-to-noise ratio with low illumination
- 8-megapixel resolution for precise reproduction of live images in high detail
- HDMI and USB output enable simultaneous use on monitor and PC
- Supports Microsoft® Windows 7, 8, 10 and 11 – broad use even in existing IT infrastructure
- Integrated software functionality enables stand-alone operation without a PC
- S-Viewer PC software for convenient image processing and analysis – available on our website www.kern-sohn.com/shop/en/DOWNLOADS
- C-mount connection for easy combination with all common trinocular microscopes
- Ideal for training courses and presentations thanks to live image transmission via monitor or projector

STANDARD



Model KERN	Resolution	Interface	FPS	Sensor	Sensor size	Colour/ Monochrome	Supported operating system	Price excl. of VAT ex works € KERN
ODC 854	8 MP 4K	USB 2.0, HDMI	30	CMOS	1/1,8"	colour	Win 7, 8, 10, 11	**700,–**





The cooled camera for professional fluorescence examinations

Features

- The ODC 861 camera with Peltier cooling technology has been specially designed for fluorescent applications. It is able to significantly compensate for image noise associated with weak lighting. Due to its high resolution and light-sensitive Sony CMOS colour sensor it proves first-class images. The practical, sturdy storage box serves as protection and for transportation of this premium camera
- Realtime images can be transferred straight to a PC or laptop using the integrated USB 3.0 interface. As an alternative, 2 USB 2.0 interfaces are available, to operate the camera with the software KERN Microscope VIS
- Power supply is from an external 12 V power unit
- Please order the appropriate C-mount adapter (only 1,0x possible) to fit your KERN microscope now
- Black balance possible

Note: Can only be used in combination with compound microscopes

STANDARD

Model	Resolution	Interface	FPS	Sensor	Sensor size	Colour/ Monochrome	Supported operating system	Price excl. of VAT ex works €
KERN								
ODC 861	20 MP	USB 3.0	5 – 30	CMOS	1"	colour	Win XP, Vista, 7, 8, 10, 11	**2310,–**

Eyepiece Cameras – USB 2.0/3.0 KERN ODC-87 · ODC-88



ODC-87, ODC-88



Eyepiece camera fixed into the tube

Features

- With the KERN eyepiece cameras you can convert your standard microscope to a digital microscope, by replacing one eyepiece of your non-digital microscope with an eyepiece camera and connect this to your computer via USB
- The universal eyepiece can be connected to the microscope as well as to a laptop or PC using the USB cable (2.0 or 3.0, see table)
- The power supply is through the USB cable, which means that no additional power supply is required
- Your daily work is made significantly easier with the very best synchronisation, a high frame rate as well as stable image performance together with our software
- As well as the camera, the delivery includes a USB cable (length: 1,5 m), two eyepiece adapters and an object micrometer to calibrate the software
- Possible tube diamaters:
  23,2 mm (Standard)
  30,0 mm (Eyepiece adapter)
  30,5 mm (Eyepiece adapter)
- "Microsoft VIS" PC software for convenient image processing and analysis - available on our website
  www.kern-sohn.com/shop/en/DOWNLOADS

STANDARD

Model	Resolution	Interface	FPS	Sensor	Sensor size	Colour/ Monochrome	Supported operating system	Price excl. of VAT ex works €
KERN								
ODC 874	3 MP	USB 2.0	3 – 7,5	CMOS	1/2,7"	colour	Win XP, Vista, 7, 8, 10, 11	**220,–**
ODC 881	5 MP	USB 3.0	15 – 30	CMOS	1/2,5"	colour	Win XP, Vista, 7, 8, 10, 11	**300,–**

The digital USB microscope for rapid testing or for hobby use



ODC 895

Features

- The USB hand-held microscope is designed for rapid and simple observations. Ideally suited for coins, plants, insects and skin samples for all hobby scientists, children and students
- With the USB microscope you can easily adjust the magnification to suit all conventional samples. The zoom range can be adjusted to a magnification of 10x as well as 200x
- The eight LEDs fitted in the ring shape ensure strong and effective illumination of your sample. Use the adjustment wheel on the cable to control the illumination setting
- Cable length: 1,4 m

Stand with focus wheel:

- Work area: 150×80 mm
- Focus range: 60 mm
- Overall dimensions: 150×80×135 mm
- “Microscope VIS” PC software for convenient image processing and analysis - available on our website www.kern-sohn.com/shop/en/DOWNLOADS

STANDARD

1 DAY

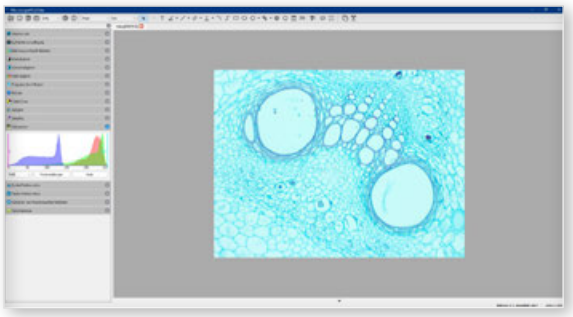
Model KERN	Resolution	Interface	FPS	Sensor	Sensor size	Supported operating system	Magnification levels	Focusing stand	Illumination	Price excl. of VAT ex works € €
ODC 895	2 MP	USB 2.0	15 – 30	CMOS	1/3,2"	Win XP, Vista, 7, 8, 10, 11	10x, 200x	Focus wheel	8× LED	**220,–**

10

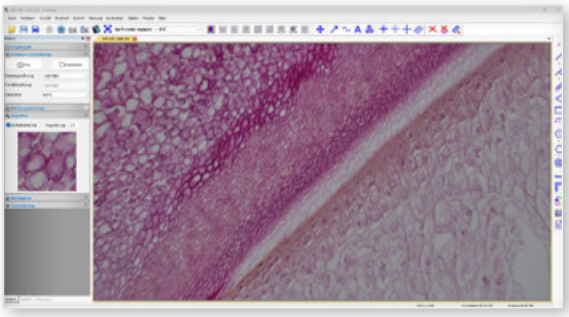
Microscope camera software VIS 2.0 Pro • VIS 2.0 Lite • S-Viewer

The digital specialists for measurement, counting and documentation

NEW



Microscope VIS 2.0 Lite



S-Viewer

Features

Microscope VIS 2.0 Pro

- This software was specially developed for the control, image acquisition and processing of microscope cameras. It offers extensive functions for image optimisation, measurement and file management. Suitable for models ODC 825, 832, 841, 852, 861, 874, 881 and 895

Microscope VIS 2.0 Lite

- The Lite version concentrates on the essentials: It offers all the important functions for everyday use when using a microscope and documenting your work without the additional functions of the PRO version – clear, efficient and user-friendly. It is also suitable for the ODC 825, 832, 841, 852, 861, 874, 881 and 895 models

S-Viewer

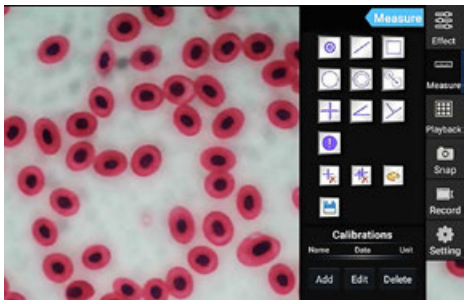
- The S-Viewer software is used for live viewing, image acquisition, measurement and editing of microscope images and videos. It is suitable for camera model ODC 854 as well as for the microscope series OIV-3, OIV-9, OBT-2

You can download all software versions free of charge from our website



ODC 241





Integrated software with measuring function

Tablet with integrated camera for observation and digital documentation of the sample

10

Features

- A 2-in-1 solution in digital microscopy as a universal system for trinocular microscopes with C-mount adapter. The ODC 241 microscope-tablet-camera consists of a large Android tablet in combination with a 5-MP camera
- The KERN ODC 241 tablet-camera has been specially developed for simple and direct observation of the sample on the screen. Ideally suited for school pupils and students in education or for demonstration purposes in the laboratory
- As well a live transfer of the image to the Android table, the integrated 5-MP camera also means that images and videos can be created for the documentation
- Simple measuring functions such as, for example, functions for measuring distance, surfaces and angles as well as a manual counting function are also available
- Automatic white balance and automatic contrast adjustment can be performed quickly and easily, which enables efficient working procedures
- A range of additional functions are provided through the integrated interfaces, such as, for example
  - Data storage on a USB stick or SD card
  - Connection to a USB mouse
  - Transfer of the live image to an external screen using HDMI
- The delivery includes the tablet camera with pre-installed software as well as the mains adapter

Technical data

- 9.7" LCD-Touchscreen
- Screen resolution: 2048×1536 pixels
- CPU: Quad Core Cortex-A17; 1,8 GHz
- Overall dimensions W×D×H 238×51×206 mm
- Net weight approx. 0,65 kg

Note: Cannot be combined with the following microscopes: series OZM-5, OLM 170

STANDARD



Model	Resolution Camera	Interface	FPS	Sensor	Sensor size	Supported operating system	Price excl. of VAT ex works €
KERN							
ODC 241	5 MP	WiFi, USB 2.0, HDMI, SD	15 – 30	CMOS	1/2,5"	Android 5.1	**980,–**









Integrated software with touch user interface

HD tablet with integrated 4K camera for convenient monitoring and professional digital documentation of the sample

Features

- The KERN ODC 251 microscope tablet camera consists of an Android tablet with a 10.5" HD display in combination with an 8 MP camera. It is intuitive to use and is suitable for all trinocular microscopes with a C-mount adapter
- The KERN tablet cameras have been specially developed for simple, direct monitoring of samples on the screen, whether used in the laboratory, in quality testing or in training and studying
- The integrated high-performance camera has an 8 MP image sensor with a sensor size of 1/1.8" and is able to record videos with a resolution of 4K. In this way, as well a live transfer of the image to the Android table, high-resolution images and videos can also be created for the documentation. Measuring functions, such as, for example, functions for measuring distance, surfaces and angles are also available
- Automatic white balance and automatic contrast adjustment can be performed quickly and easily, which enables efficient working procedures
- A range of additional functions are provided through the integrated interfaces, such as, for example
  - Data storage on a USB stick
  - Connection to a USB mouse
  - Transfer of the live image to an external screen using HDMI
  - Transfer stored data to a computer via USB data cable
- The delivery includes the tablet camera with pre-installed measuring software, the power supply, a calibration slide as well as user instructions

Scope of application

- Goods inwards inspection
- Quality control
- Repair and Service
- Laboratories
- Training and study

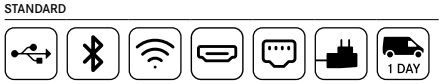
Technical data

- 10,5" LCD-Touchscreen
- Screen resolution: pixels 1920×1280
- CPU: Quad Core Cortex-A17; 1,8 GHz
- Overall dimensions W×D×H 237×169×57 mm
- Net weight approx. 0,80 kg

Note: Cannot be combined with the following microscopes: OZM-5, OLM 170

10

STANDARD



3×

Model	Resolution camera	Interfaces	FPS	Sensor	Sensor size	Supported operating system	Price excl. of VAT ex works €
KERN							
ODC 251	8 MP 4 K	Ethernet, Bluetooth, WLAN, USB 2.0, USB 3.0, HDMI	30 FPS	CMOS	1/1,8"	Android	**1190,–**

11–13

REFRACTOMETERS







11 Analogue Refractometers – Type: Hand-held 95

12 Digital Refractometers – Type: Hand-held 102

13 Digital Refractometers – Type: Desktop 108



Ralf Gutbrod
Technical Sales KERN Optics
Tel. +49 7433 9933-306
optics@kern-sohn.com







NEW: now with engraved serial number

Refractive index measurement for laboratories and the industry

Features

- The KERN ORA refractometers are universal, maintenance-free analogue handheld refractometers
- The handy and robust design allows the easy, efficient and sustainable use in everyday life
- Manually calculated conversions and errors of the user are avoided by multiple selectable scales
- These scales are especially developed, exactly calculated and checked. They are also characterized by their thin and clear lines
- The optical system and the prism cover are made of special material which allows a low-tolerance measuring
- All ORA models are equipped with an eyepiece for easy and smooth setting for many different diopter strengths
- The models marked with “ATC” have an automatic temperature compensation which enables accurate measurement at different ambient temperatures (10 °C/30 °C). For models without ‘ATC’, the results must be adjusted according to the enclosed international temperature correction table
- The following accessory-parts are included:
  - Storage box
  - Calibration liquid
  - Calibration block (if required)
  - Pipette
  - Screwdriver
  - Cleaning tissue
- Further accessories are optionally available

Technical data

- Die-cast housing of copper-aluminium alloy, chrome coated
- Measurement temperature range 10 – 30 °C
- Dimensions of the box: 205×75×55 mm (depending on the model)
- Product length: approx. 130 – 200 mm (depending on the model)
- Net weight approx. 135 – 600 g (depending on the model)

Note: Also available with calibration certificate, see page 110

STANDARD 1 DAY

OPTION

Scope of application: Sugar



The following models are particularly suitable for the measurement of the “BRIX” value. They are used to determine the sugar content in food, especially in fruit, vegetables, juice and soft drinks. In the same ideal way these refractometers serve for monitoring processes in the industry (coolant monitoring, oils, water-based mixtures).

The main scope of applications is:
- Food industry: Beverages, fruits and sweets
- Agriculture: Determination of the degree of ripeness of fruits for quality control in harvesting, determination of colostrum milk quality
- Restaurants and large-scale catering establishment

Model KERN	Scales	Measuring range	Division	ATC	Price excl. of VAT ex works €
ORA 10BA	Brix	0 – 10 %	0,1 %	✓	**95,–**
ORA 20BA	Brix	0 – 20 %	0,1 %	✓	**95,–**
ORA 32BA	Brix	0 – 32 %	0,2 %	✓	**65,–**
ORA 62BA	Brix	28 – 62 %	0,2 %	✓	**95,–**
ORA 82BB	Brix	45 – 82 %	0,5 %		**90,–**
ORA 80BB	Brix	0 – 80 %	0,5 %		**90,–**

11

Scope of application: Honey



The following models are particularly suitable for the measurement of the “BRIX” value, as well as the water content in honey and “degrees Baumé” to determine the relative density of liquids.

The main scope of applications is:
- Beekeeping
- Honey production

Model KERN	Scales	Measuring range	Division	ATC	Price excl. of VAT ex works €
ORA 3HA	Brix Baumé Water content	58 – 92 % 38 – 43 °Bé 12 – 27 %	0,5 % 0,5 °Bé 1 %	✓	**105,–**
ORA 6HA	Water content according to AOAC standard	12 – 30 %	0,1 %	✓	**85,–**

6HA: no calibration certificate possible

Scope of application: Salt

The following models are particularly suitable for the measurement and concentration control of the mass fraction of natrium chloride in water as well as of the content of NaCl (salt) in water. This is often used in the preparation and the cooking of sauces, bases for pastries, the production of brines (e.g. for white cheese) and the preparation of seafood and marinades for meat.



The main scope of applications is:
- Food industry
- Restaurants and large-scale catering establishment
- Aquaristic: Fishkeepers/Fishfarmers in sea and sweetwater

Model KERN	Scales	Measuring range	Division	ATC	Price excl. of VAT ex works €
ORA 1SA	Salt content (NaCl) ‰ specific gravity	0 – 100 ‰ 1,000 – 1,070 sg	1 ‰ 0,001 sg	✓	**95,–**
ORA 3SA	Salt content (NaCl) % Brix	0 – 28 % 0 – 32 %	0,2 % 0,2 %	✓	**95,–**

Scope of application: Wine

The following models are particularly suitable for the measurement of the content of sugar in fruits. It indicates the expected °Alcohol of the fruit. The degree of ripeness of fruit (fruit-sugar) can also be determined, such as e.g. grapes.



The main scope of applications is:
- Agriculture: Wine-growing and fruit-growing
- Wine-production
- Must and alcohol production

°Oe = Degree Oechsle, °KMW = Klosterneuburger Must balance

Model KERN	Scales	Measuring range	Division	ATC	Price excl. of VAT ex works €
ORA 1WA	Oechsle KMW (Babo) Brix	0 – 140 °Oe 0 – 25 °KMW 0 – 32 %	1 °Oe 0,25 °KMW 0,2 %	✓	**95,–**
ORA 3WA	Oechsle Brix	30 – 140 °Oe 0 – 32 %	1 °Oe 0,2 %	✓	**95,–**

Scope of application: Beer/alcohol



The following models are particularly suitable for determining the sugar content of the original wort of beer in its unfermented state. The value can be read straightaway, without having to be converted, using the SG Wort and Degrees Plato scales. In addition, the percent by volume and percent by mass scales can be used to determine the alcohol content of clear spirits.

The main scope of applications is:
- Beer brewers
- Alcohol production

Model KERN	Scales	Measuring range	Division	ATC	Price excl. of VAT ex works €
ORA 3AA	Brix Original gravity (specific weight)	0 – 32 % 1,000 – 1,130	0,2 % 0,001	✓	**95,–**
ORA 4AA	Plato	0 – 18° P	0,1° P	✓	**95,–**
ORA 1AB	Percentage by volume Percentage by volume	0 – 50 % (v/v) 50 – 80 % (v/v)	1 % (v/v) 2,5 % (v/v)		**90,–**
ORA 2AB	Percentage by mass Percentage by mass	0 – 50 % (w/w) 50 – 80 % (w/w)	1 % (w/w) 2,5 % (w/w)		**90,–**

Scope of application: Urine



The following models are particularly suitable for the measurement of the specific gravity (sg) in urine, the quantitiy of serum (serumproteine) in urine (doping control among athletes), and the refractive index.

The main scope of applications is:
- Hospitals
- Doctor's surgeries/Physicians
- Medical training institutions
- Nursing homes
- Sports medicine (doping test)
- Veterinary

Model KERN	Scales	Measuring range	Division	ATC	Price excl. of VAT ex works €
ORA 2PA	Serum protein Urine (spec. gravity) Refractive index	0 – 12 g/100 ml 1,000 – 1,050 1,3330 – 1,3600 nD	0,2 g/100 ml 0,002 0,0005 nD	✓	**95,–**
ORA 5PB	Serum protein Urine (s. g. dog) Urine (s. g. cat)	2 – 14 g/100 ml 1,000 – 1,060 1,000 – 1,060	0,1 g/100 ml 0,001 0,001		**90,–**

Scope of application: Industry/Automotive







The following models are particularly suitable for the measurement and determination of AdBlue®, glycol concentration ethylene (EG) and propylene (PG), battery fluid (BF), urea, the freezing point of windscreen wash water (CW). Furthermore these models are suitable for the measurement of thermal exchange systems.

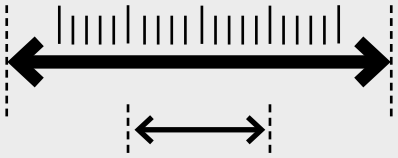
The main scope of applications is:
- Automotive industry: Car-workshops and producers, in accordance with the VW standards G11/G12 and G13
- Chemical industry
- Solar industry: Antifreeze monitoring
- Industry: Monitoring of lubricants for process and quality control

Model KERN	Scales	Measuring range	Division	ATC	Price excl. of VAT ex works € €
ORA 32BA	Brix	0 – 32 %	0,2 %	✓	**65,–**
ORA 4FA	Ethylene glycol (G11/12) Propylene glycol (G13) Windshield washer fluid Battery fluid	-50 – 0 °C -50 – 0 °C -40 – 0 °C 1,10 – 1,40 kg/l	1 °C 1 °C 5 °C 0,01 kg/l	✓	**65,–**
ORA 1UA	Urea	0 – 40 %	0,2 %	✓	**95,–**
ORA 4UA	Urea Ethylene glycol (G11/12) Propylene glycol (G13) Windshield washer fluid Battery fluid	30 – 35 % -50 – 0 °C -50 – 0 °C -40 – 0 °C 1,10 – 1,40 kg/l	0,2 % 1 °C 1 °C 5 °C 0,01 kg/l	✓	**95,–**

Scope of application: Expert applications

The following models have a special large measuring range for the refractive index and large divided scales for the measurement and clear reading of Brix values.

The main scope of applications is:
- Universal application, especially when extra large measuring ranges are required



Model KERN	Scales	Measuring range	Division	ATC	Price excl. of VAT ex works €
ORA 80BE	Brix	0 – 50 % 50 – 80 %	0,5 % 0,5 %		**160,–**
ORA 90BE	Brix	0 – 42 % 42 – 71 % 71 – 90 %	0,2 % 0,2 % 0,2 %		**360,–**
ORA 1RE*	Refractive index	1,333 – 1,405 nD 1,405 – 1,468 nD 1,468 – 1,517 nD	0,005 nD 0,005 nD 0,005 nD		**360,–**
ORA 4RR*	Refractive index	1,440 – 1,520 nD	0,001 nD		**95,–**

*no calibration certificate possible


ORA 4RR


ORA 90 BE/ORA 1RE


ORA 80BE

11

Scope of application: Gemmology/Jewellery

This model has a special refracting-index range for jewellery. For this refractometer there is a nice leather bag in the scope of delivery included.



The main scope of applications is:
- Jewellers
- Training/Education
- Jewellery industry

Model KERN	Scales	Measuring range	Division	Price excl. of VAT ex works €
ORA 1GG*	Refractive index	1,30 – 1,81 nD	0,01 nD	**250,–**

*no calibration certificate possible


ORA 1GG

Accessory parts: Analogue refractometer – ORA



Prism coverplate with LED ORA-A1101



Calibration liquid/Contact liquid



Leather bag ORA-A2103



Calibration block

Model KERN	Description	Price excl. of VAT ex works €
ORA-A1101	Prism coverplate with integrated LED illumination	**25,–**
ORA-A2103	Leather bag for analog refractometers	**25,–**
ORA-A2107	Leather bag for Gem refractometers (Spare part)	**35,–**
ORA-A1010	Calibration liquid – distilled water – Set of 5 Volume: 5× approx. 3 ml	**25,–**
ORA-A1002	Contact liquid – Clove oil (for Calibration value 19,6%) Volume: approx. 2 ml	**25,–**
ORA-A1003	Calibration liquid – saturated salt solution Volume: approx. 2 ml	**25,–**
ORA-A1004	Contact liquid – Clove oil (for Calibration value 78,8%) Volume: approx. 2 ml	**25,–**
ORA-A1005	Calibration block for models ORA 82BB, ORA 3HA, ORA 3HB, ORA 6HA, ORA 6HB , ORA 4RR	**25,–**
ORA-A1007	Contact liquid – Diiodomethane “Standard” (Refractive index: 1,74 nD) Volume: approx. 2 ml	**30,–**
ORA-A3001	Contact liquid – Diiodomethane “Pro” (Refractive index: 1,79 nD) Volume: approx. 2 ml	**40,–**
ORA-A1008	Calibration block for model ORA 1GG	**25,–**
ORA-A2001	Prism coverplate (spare part)	**21,–**

Relationship overview – refractometer calibration (analogue)

Model refractometer	Calibration value	Calibration liquid	Article number liquid	Calibration block	Article number calibration block
ORA 10BA; ORA 18BB; ORA 1WA; ORA 20BA; ORA 32BA; ORA 32BB; ORA 3SA; ORA 3WA; ORA 7WA; ORA 80BB; ORA 80BE; ORA 3AA	0 % Brix	distilled water	ORA-A1010	–	–
ORA 4AA	0 ° Plato	distilled water		–	
ORA 1UA	0 % Urea	distilled water		–	
ORA 4FA; ORA 4UA	0 °C EG/PG/CW	distilled water		–	
ORA 1SA	0 ‰ Salinity	distilled water	ORA-A1010	–	–
ORA 2SA; ORA 2SB	0 % Salt (NaCl)	distilled water		–	
ORA 2AB	0 % Vol (weight)	distilled water		–	
ORA 2PA; ORA 5PB	1,000 sg Urine	distilled water		–	
ORA 62BA	29,6 % Brix	saturated salt solution	ORA-A1003	–	–
ORA 3HA; ORA 82BB	78,8 % Brix	Clove oil CAS 8000-34-8	ORA-A1004	yes	ORA-A1005
ORA 4RR	1,4875 nD	Clove oil CAS 8000-34-8	ORA-A1004	yes	ORA-A1005
ORA 6HA; ORA 6HB	19,6 % Water content	Clove oil CAS 8000-34-8	ORA-A1002	yes	ORA-A1005
ORA 1GG	1,515 nD	Diiodomethane CAS 90-11-9	ORA-A1007	yes	ORA-A1008





Transport and storage case



Rear view, screw-on battery compartment cover

Digital measurement of refraction index for universal application

Features

- The KERN ORM refractometers are accurate and universal maintenance free digital handheld refractometers
- They are characterized by their easy-using and robustness
- The typical and practical design is suitable for a quick and convenient everyday use
- The large, easy-to-read display with integrated temperature display supports the user to reliably determine the measurement
- The integrated automatic temperature compensation (ATC), avoids the manual conversion of the measurement. This allows a quick and efficient usage of the instrument
- Rapid, user-friendly calibration of the refractometer is possible at any time using standard commercial distilled water
- The refractometers from the KERN ORM range are protected to international IP65 protection class, against dust and water splashes. After use, you can rinse the refractometer under running water
- Mean value measurements possible
- The follwoing accessory-parts are included:
  - Prism cover lid
  - Pipette
  - Storage box
  - 1 × AAA battery
  - Screwdriver

Technical data

- Measurement temperature: 0 °C – 40 °C
- Overall dimensions W×D×H 121×58×25 mm
- Net weight approx. 289 g
- Power supply: 1 × AAA (1,5 V)
- Lifetime of the battery: approx. 10.000 measurements
- ATC (Automatic Temperature Compensation 0 °C – 40 °C)
- Minimum sample volume: 4 drops
- Automatic energy management (AUTO-OFF after 60 seconds)
- Mean value measurement (15 measurements)

Accessories

- Calibration liquid, KERN ORA-A1010, **€ 25,–**

Note: Also available with calibration certificate, see page 110

STANDARD

IP 1 DAY

Scope of application: Basic measurements for Brix and refractive index



The following models are particularly suitable for basic measurement where the result is required in Brix or refractive index. They are used to determine the sugar content in food or for monitoring processes in the industry (coolant monitoring, water-based mixtures). Alternatively the display can be switched to show Brix or the refractive index.

The main scope of applications is:
- Industry: Monitoring of lubricants in machines and quality control
- Food industry: Beverages, fruits and sweets
- Agriculture: Determination of the degree of ripeness of fruit for quality control in harvesting
- Restaurants and large-scale catering establishment

Model KERN	Scales	Measuring range	Accuracy	Division	Price excl. of VAT ex works €
ORM 50BM	Brix Refractive index	0 – 50 % 1,3330 – 1,4200 nD	± 0,2 % ± 0,0003 nD	0,1 % 0,0001 nD	**305,–**
ORM 1RS	Brix Refractive index	0 – 90 % 1,3330 – 1,5177 nD	± 0,2 % ± 0,0003 nD	0,1 % 0,0001 nD	**375,–**

Scope of application: Sugar



The following models are particularly suitable for direct measurement of different types of sugar. These are used to determine the content of the respective type of sugar in water-based liquids. It is possible to switch between the four different scales.

The main scope of applications is:
- Food industry: Beverages, fruits and sweets
- Agriculture: Determination of the degree of ripeness of fruits for quality control in harvesting, determination of colostrum milk quality
- Restaurants and large-scale catering establishment

Model KERN	Scales	Measuring range	Accuracy	Division	Price excl. of VAT ex works €
ORM 1SU	Fructose	0 – 69 %	± 0,2 %	0,1 %	**375,–**
	Glucose	0 – 60 %	± 0,2 %	0,1 %	
	Brix	0 – 90 %	± 0,2 %	0,1 %	
	Refractive index	1,3330 – 1,5177 nD	± 0,0003 nD	0,0001 nD	
ORM 2SU	Lactose	0 – 17 %	± 0,2 %	0,1 %	**305,–**
	Maltose	0 – 16 %	± 0,2 %	0,1 %	
	Dextran	0 – 11 %	± 0,2 %	0,1 %	
	Brix	0 – 50 %	± 0,2 %	0,1 %	

Scope of application: Honey



The following model is particularly suitable for the measurement of the water content in honey according to the International Honey Commission (IHC2002) and “degrees Baumé” to determine the relative density of liquids. Alternatively the display can be switched to show Brix or the refractive index.

The main scope of applications is:
- Beekeeping
- Honey production

Model KERN	Scales	Measuring range	Accuracy	Division	Price excl. of VAT ex works €
ORM 1HO	Water content Baumé Brix Refractive index	5 – 38 % 33 – 48 °Bé 0 – 90 % 1,3330 – 1,5177 nD	± 0,2 % ± 0,2 °Bé ± 0,2 % ± 0,0003 nD	0,1 % 0,1 °Bé 0,1 % 0,0001 nD	375,–

Scope of application: Salt



The following models are particularly suitable to determin the concentration of NaCl (salt) in water and seawater. This is often used for the preparation and for the cooking of sauces, bases for pastries, the production of brines (e.g. for white cheese) and the preparation of seafood and marinades for meat. Alternatively the display can be switched to show Brix or the refractive index.

The main scope of applications is:
- Food industry
- Restaurants, and large-scale catering establishment, canteens
- Aquaristic: Fishkeepers/Fishfarmers in sea and sweetwater

Model KERN	Scales	Measuring range	Accuracy	Division	Price excl. of VAT ex works €
ORM 1NA	Salt content (NaCl) %	0 – 28 %	± 0,2 %	0,1 %	305,–
	Salt content (NaCl) ‰	0 – 280 ‰	± 2 ‰	1 ‰	
	Salt content (specific gravity)	1,000 – 1,220	± 0,002	0,001	
	Brix	0 – 50 %	± 0,2 %	0,1 %	
	Refractive index	1,3330 – 1,4200 nD	± 0,0003 nD	0,0001 nD	
ORM 1SW	Salt content seawater	0 – 100 ‰	± 2 ‰	1 ‰	305,–
	Chlorine content seawater	0 – 57 ‰	± 2 ‰	1 ‰	
	Salt content (specific gravity)	1,000 – 1,070	± 0,002	0,001	
	Brix	0 – 50 %	± 0,2 %	0,1 %	
	Refractive index	1,3330 – 1,4200 nD	± 0,0003 nD	0,0001 nD	

Scope of application: Beer/alcohol



The following models are particularly suitable for determining the sugar content of the original wort of beer in its unfermented state. The value can be read straightaway, without having to be converted, using the Original gravity (specific weight) and Degrees Plato scales. In addition, the percent by volume and percent by mass scales can be used to determine the alcohol content of clear spirits.

The main scope of applications is:
- Beer brewers
- Alcohol production

Model KERN	Scales	Measuring range	Accuracy	Division	Price excl. of VAT ex works €
ORM 1AL	Percentage by mass Percentage by volume Brix Refractive index	0 – 72 % 0 – 80 % 0 – 50 % 1,3330 – 1,4200 nD	± 1 % ± 1 % ± 0,2 % ± 0,0003 nD	1 % 1 % 0,1 % 0,0001 nD	305,–
ORM 1BR	Plato Original gravity (specific weight) Brix Refractive index	0 – 31 °P 1,000 – 1,130 0 – 50 % 1,3330 – 1,4200 nD	± 0,3 °P ± 0,002 ± 0,2 % ± 0,0003 nD	0,1 °P 0,001 0,1 % 0,0001 nD	305,–

Scope of application: Wine



The following models are particularly suitable for the measurement of the sugar content in fruit. They can be used to determine the expected alcohol content of the fruit and predict the probable alcohol content before fermentation. The degree of ripeness of fruit (fruit-sugar) can also be determined, such as e.g. grapes. Alternatively the display can be switched to show Brix.

The main scope of applications is:
- Agriculture: Wine-growing (viticulture) and fruit-growing
- Wine-production
- Must and alcohol production

°Oe = Degree Oechsle, °KMW = Klosterneuburger Most Waage

Model KERN	Scales	Measuring range	Accuracy	Division	Price excl. of VAT ex works €
ORM 1WN	Oechsle Percentage by volume KMW (Babo) Brix	0 – 150 °Oe 0 – 22 % 0 – 25 °KMW 0 – 50 %	± 2 °Oe ± 0,2 % ± 0,2 °KMW ± 0,2 %	1 °Oe 0,1 % 0,1 °KMW 0,1 %	305,–
ORM 2WN	Oechsle France Percentage by volume KMW (Babo) Brix	0 – 230 °Oe 0 – 22 % 0 – 25 °KMW 0 – 50 %	± 2 °Oe ± 0,2 % ± 0,2 °KMW ± 0,2 %	1 °Oe 0,1 % 0,1 °KMW 0,1 %	305,–

Scope of application: Coffee



The following models are particularly suitable for measuring the dissolved solids (TDS) in coffee to determine or compare the strength of a cup of coffee. For roasting plants, the TDS% value is used to determine the solubility level of a roast and to control the quality. Alternatively the display can be switched to show Brix or the refractive index.

The main scope of applications is:
- Coffee industry
- Coffee roasting plants
- Coffee competitions

Modell KERN	Scales	Measuring range	Accuracy	Division	Price excl. of VAT ex works €
ORM 1CO	Coffee TDS 1 Brix Refractive index	0 – 25 % 0 – 50 % 1,3330 – 1,4200 nD	± 0,2 % ± 0,2 % ± 0,0003 nD	0,1 % 0,1 % 0,0001 nD	305,–
ORM 2CO	Coffee TDS 2 Brix Refractive index	0,00 – 25,00 % 0,00 – 30,00 % 1,3330 – 1,4200 nD	± 0,2 % ± 0,2 % ± 0,0003 nD	0,01 % 0,01 % 0,0001 nD	305,–

Scope of application: Urine



The following models are particularly suitable for the measurement of the specific gravity (sg) in urine, the quantitiy of serum (serumproteine) in urine (doping control among athletes), and the refractive index.

The main scope of applications is:
- Hospitals
- Doctor's surgeries/Physicians
- Medical training institutions
- Nursing homes
- Sports medicine (doping test)
- Veterinary

Model KERN	Scales	Measuring range	Accuracy	Division	Price excl. of VAT ex works €
ORM 1UN	Urine (spec. gravity) Serum protein Brix Refractive index	1,000 – 1,050 0 – 12 g/100 ml 0 – 50 % 1,3330 – 1,4200 nD	± 0,002 ± 0,2 g/100 ml ± 0,2 % ± 0,0003 nD	0,001 0,1 g/100 ml 0,1 % 0,0001 nD	305,–
ORM 2UN	Urine (s. g. dog) Urine (s. g. cat) Brix Refractive index	1,000 – 1,060 1,000 – 1,060 0 – 50 % 1,3330 – 1,4200 nD	± 0,002 ± 0,002 ± 0,2 % ± 0,0003 nD	0,001 0,001 0,1 % 0,0001 nD	305,–

Scope of application: Industry/Automotive







The following models are particularly suitable for the measurement and determination of AdBlue®, glycol concentration ethylene (EG) and propylene (PG) (according to ASHRAE standard), battery fluid (BF), urea, the freezing point of windscreen wash water (CW). Furthermore these models are suitable for the measurement of thermal exchange systems. Alternatively the display can be switched to show Brix or the refractive index.

The main scope of applications is:
- Automotive industry: Car-workshops and producers
- Chemical industry
- Solar industry: Antifreeze monitoring
- Industry: Monitoring of lubricants for process and quality control

Model **KERN**	Scales	Measuring range	Accuracy	Division	**Price excl. of VAT ex works €**
ORM 1CA	Wash water AdBlue® Battery fluid Brix Refractive index	(-60) – 0 °C 0 – 51 % 1,000 – 1,500 kg/l 0 – 50 % 1,3330 – 1,4200 nD	± 0,5 °C ± 0,2 % ± 0,005 kg/l ± 0,2 % ± 0,0003 nD	0,1 °C 0,1 % 0,001 kg/l 0,1 % 0,0001 nD	**305,–**
ORM 2CA	Ethylene glycol (%) Ethylene glycol (° C) Propylene glycol (%) Propylene glycol (°C) Brix	0 – 100 % (-50) – 0 °C 0 – 100 % (-60) – 0 °C 0 – 90 %	± 0,5 % ± 0,5 °C ± 0,5 % ± 0,5 °C ± 0,2 %	0,1 % 0,1 °C 0,1 % 0,1 °C 0,1 %	**375,–**





Transport and storage case



Rear view, screw-on battery compartment cover

Digital measurement of refraction index for universal application

Features

- NEW: Up to eight additional, individually selectable scales available, for more details see internet
- NEW: Free OXR-BASIC software for performing measurements and for saving and exporting measurement results, for more details see internet
- The KERN ORL 94BS is a accurate, universal and maintenance-free digital desktop refractometer
- Other key features are the extra-large measuring range and a high degree of accuracy
- With their handy design, they are ideal for convenient and rapid everyday use
- The large, easy-to-read display with integrated temperature display supports the user to reliably determine the measurement
- The integrated automatic temperature compensation (ATC), avoids the manual conversion of the measurement. This allows a quick and efficient usage of the instrument
- A quick and user-friendly calibration of the refractometer is possible at any time using commercially available distilled water
- Mean value measurements possible
- Scope of delivery:
  - Pipette
  - Storage case
  - USB cable
  - Power adapter
  - Screwdriver
  - Operating instructions

Technical data

- Measurement temperature: 0 °C – 40 °C
- Overall dimensions W×D×H 180×100×55 mm
- Net weight approx. 365 g (without battery)
- Power supply: USB connection, as an alternative 1 × battery 3.7 V 3000 mA (not included with delivery)
- ATC (Automatic Temperature Compensation)
- Minimum sample volume: 0,3 – 0,4 ml
- Automatic energy management (AUTO-OFF after 3 Minutes)
- Mean value measurement (15 measurements)

Note: Also available with calibration certificate

13

STANDARD OPTION

1 DAY

Model	Scales	Measuring range	Accuracy	Division	Price excl. of VAT ex works €
KERN					
ORL 94BS	Brix Refractive index	0 – 94 % 1,3330 – 1,5290 nD	± 0,1 % ± 0,0002 nD	0,1 % 0,0001 nD	**840,–**

Digital refractometer application set with predefined scales

NEW

ORL 94BS digital refractometer set with Brix and refractive index scales as well as other predefined scales for your specific application area

Area of application: Alcohol

Model KERN	Scales	Measuring range	Accuracy	Division	Price excl. of VAT ex works € €
ORL 94AL	Brix	0–94 %	±0,1 %	0,1%	990,-
	Refraktive index	1,3330–1,5290 nD	±0,0002 nD	0,0001 nD	
	Percent by mass	0–72 %	±1 %	1%	
	Volume percentage	0–80 %	±1 %	1%	
	Plato	0–31 °P	±0,3 °P	0,1 °P	
	Original gravity (specific weight)	1,000–1,130	±0,002	0,001	
	Oechsle	0–150 °Oe	±2 °Oe	1 °Oe	
	Oechsle France	0–230 °Oe	±2 °Oe	1 °Oe	
	Volume percentage (Wine)	0–22 %	±0,2 %	0,1%	
	KWM (Babo)	0–25 °KWM	±0,2 °KWM	0,1 °KWM	



Area of application: Industry/Motor vehicles

Modell KERN	Scales	Measuring range	Accuracy	Division	Price excl. of VAT ex works € €
ORL 94IN	Brix	0–94 %	±0,1%	0,1%	990,-
	Refraktive index	1,3330–1,5290 nD	±0,0002 nD	0,0001 nD	
	Windshield washer fluid	(-60)–0 °C	±0,5 °C	0,1 °C	
	Battery fluid	1,000–1,500 kg/l	±0,005 kg/l	0,001 kg/l	
	Ethylene glycol (%)	0–100 %	±0,5 %	0,1%	
	Ethylene glycol (°C)*	(-50)–0 °C	±0,5 °C	0,1 °C	
	Propylene glycol (%)	0–100 %	±0,5 %	0,1%	
	Propylene glycol (°C)*	(-60)–0 °C	±0,5 °C	0,1 °C	

*according to ASHRAE standard



Area of application: Food

Modell KERN	Scales	Measuring range	Accuracy	Division	Price excl. of VAT ex works € €
ORL 94LM	Brix	0–94 %	±0,1%	0,1%	990,-
	Refraktive index	1,3330–1,5290 nD	±0,0002 nD	0,0001 nD	
	Fructose (fruit-sugar)	0–69 %	±0,2%	0,1%	
	Glucose (Grape sugar)	0–60 %	±0,2%	0,1%	
	Lactose (milk sugar)	0–17 %	±0,2%	0,1%	
	Maltose (Malt sugar)	0–16 %	±0,2%	0,1%	
	Dextran	0–11 %	±0,2%	0,1%	
	Salt content (NaCl) %	0–28 %	±0,2%	0,1%	
	Salt content (NaCl) ‰	0–280 ‰	±2 ‰	1 ‰	
	Salt content (specific gravity)	1,000–1,220	±0,002	0,001	



OUR CALIBRATION SERVICE – TEST US!



Your partner for calibration services, management of test equipment and support

Testing, calibration, adjustment

Any analogue or digital refractometer will only give correct results if it is checked regularly, i.e. calibrated correctly and adjusted when required. A refractometer or another measuring device is only a reliable measuring and checking tool if it is calibrated and this calibration is documented as part of a quality procedure.

Measuring correctly is essential!

Measuring “correctly” is of elementary significance, as it is not unusual for inaccurate or “wrong” measurements to have expensive economic consequences. Calibration or establishing the accuracy of checking equipment must therefore be carried out by laboratories throughout the world.

In the context of standard requirements for monitoring checking equipment, every company with a Quality Management system is obliged to test and document its measuring equipment at regular intervals.

The refractometer calibration certificate

It documents the intended measuring functionality and confirms the measuring accuracy of your refractometer to you.

Our offer for you:

· Calibration certificate for refractometers on initial calibration, KERN 961-290, **€ 141,-**

· Calibration certificate for refractometers on recalibration, KERN 961-290R, **€ 146,-**

Important:
Refractive index standard traceable to SRM[1] of NIST[2] and PTB[3]

This service is not possible for the following refractometer models:
ORA 6HA
ORA 1RE
ORA 4RR
ORA 1GG

Calibration of products from other manufacturers is possible on request

[1]Standard reference material
[2]National Institute of Standards and Technology
[3]Physikalisch-Technische Bundesanstalt (German metrology institute)

14

POLARIMETERS











Precise and durable: the reliable companion for your laboratory

Features

- The KERN OAB 20LED is an analogue polarimeter featuring ergonomic design and simple handling
- The high-performance LED used offers a significantly longer service life than conventional sodium-vapour lamps
- The illumination can be customised thanks to a brightness regulator
- The measuring principle is based on optical rotation according to the half-shade principle and guarantees precise results
- The flexible sample chamber allows the use of measuring tubes up to a length of 220 mm
- The delivery includes two measuring tubes (100 and 200 mm) with bubble trap for easy filling, replacement lenses and sealing rings

Technical data

- Light source: (589 nm) high-power LED
- Stabilisation time: approx. 5 s after switching on
- Overall dimensions W×D×H 500×130×330 mm
- Net weight approx. 2,8 kg

Accessories

- Glass cuvette, length 100 mm (Spare part), KERN OAB-A2501, **€ 110,-**
- Glass cuvette, length 200 mm (Spare part), KERN OAB-A2502, **€ 110,-**

Scope of application: Laboratory

The OAB 20LED polarimeter is the perfect choice for simple laboratory applications in companies and institutes and combines user-friendliness, precision and durability. Thanks to the robust, low-maintenance LED technology that replaces conventional sodium-vapour lamps, it is ideal for everyday use in laboratories, pharmacies and training centres. Typical applications include precise incoming and outgoing checks of pharmaceutical products in laboratories and pharmacies. It is also ideal for practical exercises, experiments and chemical analyses in academia and industry, for example on the kinetics of sucrose inversion or for determining the concentration of polysaccharides

Main scope of applications:

- Chemists
- Hospitals
- Beverage industry
- Food industry
- Chemical industry
- Laboratories
- Training

STANDARD

1 DAY

Model	Scales	Measuring range	Division	Vernier	Wave lenght	Price excl. of VAT ex works €
KERN						
OAB 20LED	Optical rotation	-180° – +180°	1°	0,05°	589 nm	**990,–**

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