

COMPOUND MICROSCOPES



PROFESSIONAL
MEASURING

2018

KERN Pictograms



360° rotatable microscope head

360°



Monocular Microscope
For the inspection with one eye

MONO



Binocular Microscope
For the inspection with both eyes

BINO



Trinocular Microscope
For the inspection with both eyes and the additional option for the connection of a camera

TRINO



Abbe Condenser
With high numerical aperture for the concentration and the focusing of light

ABBE



Halogen illumination
For pictures bright and rich in contrast

HAL



LED illumination
Cold, energy saving and especially long-life illumination

LED



Incident illumination
For non-transparent objects

IL



Transmitting illumination
For transparent objects

TL



Fluorescence illumination
For stereomicroscopes

FL



Fluorescence illumination for compound microscopes
With 100 W mercury lamp and filter

FL-HBO



Fluorescence illumination for compound microscopes
With 3 W LED illumination and filter

FL-LED



Phase contrast unit
For a higher contrast

PH



Darkfield condenser/unit
For a higher contrast due to indirect illumination

DF



Polarising unit
To polarise the light

POLAR



Infinity system
Infinity corrected optical system

INFINITY



Zoom magnification
For stereomicroscopes

ZOOM



Parallel optical system
For stereomicroscopes, enables fatigue-proof working

PARALLEL



Integrated scale
In the eyepiece

SCALE



SD card
For data storage

SD



USB 2.0 digital camera
For direct transmitting of the picture to a PC

USB 2.0



USB 3.0 digital camera
For direct transmitting of the picture to a PC

USB 3.0



WLAN data interface:
For transmitting of the picture to a mobile display device

WLAN



HDMI digital camera
For direct transmitting of the picture to a display device

HDMI



PC software
To transfer the measurements from the device to a PC.

SOFTWARE



Automatic temperature compensation
For measurements between 10 °C and 30 °C

AUTO
ATC



Protection against dust and water splashes IPxx
The type of protection is shown by the pictogram.

IP



Battery operation
Ready for battery operation. The battery type is specified for each device.

BATT



Battery operation rechargeable
Prepared for a rechargeable battery operation

RECHARGE



Mains adapter
230V/50Hz in standard version for EU. On request GB, AUS or USA version.

230 V



Power supply
Integrated in balance. 230V/50Hz standard EU. More standards e.g. GB, AUS or USA on request.

230 V



Package shipment
The time required to manufacture the product internally is shown in days in the pictogram.

1 DAY

Abbreviations

C-Mount	Adapter for the connection of a camera to a trinocular microscope
FPS	Frames per second
H(S)WF	High (Super) Wide Field (Eyepiece with high eye point for wearers of glasses)
LWD	Long Working Distance
N.A.	Numerical Aperture

SLR camera	Single-Lens Reflex camera
SWF	Super Wide Field (Field number at least \varnothing 23 mm for 10 \times eyepiece)
W.D.	Working Distance
WF	Wide Field (Field number up to \varnothing 22 mm for 10 \times eyepiece)

Why you should choose a KERN microscope now!

For over 170 years, KERN & SOHN has been synonymous with high precision weighing and measuring technology. This claim is the driving force for the development of our microscope and refractometer ranges.

By working closely with you and our production partners, within 3 years we have developed a complete product range of high-quality microscopes and refractometers.

Thanks to consistent customer focus paired with smart ideas and the latest available technology we are proud to be suppliers of high-quality, durable top microscopes and refractometers, which help you to be as efficient as possible in your daily work.

When developing our microscopes we have concentrated on the very best optical quality and have used only high-quality glass and the latest technologies to achieve this. The high-quality Philips halogen and modern LED illumination produce razor-sharp images with high contrast and which will impress you with their brilliant true-colour display – you must have noticed this yourself.

Your advantages:

- all mechanical parts have been designed for a long service life
- special attention has been given to the ergonomics of our microscopes, as this allows the user to work for several hours in a comfortable position which does not cause fatigue
- our microscopes are fully-equipped and can be used immediately
- Highlight for 2018: die KERN camera software – you will be amazed at how user-friendly and intuitive it is
- and much more...

Use our practical “Check list for microscopes and refractometers”, which may help you to quickly determine specifications for the future instrument. Together with our KERN product specialist you can choose the right product for you.

If there is no suitable product in the standard range, for example, then we will of course configure an individual microscope for you.

Our aim is to develop a market-driven product solution, so with our microscope and refractometer range, the saying holds true: good quality at a competitive price! This is what we stand for and work towards, every day!

With our current 2018 product range you can benefit from improved quality and a clear reduction in price, which we have been able to achieve through more efficient production methods and increased global sales of our microscopes and refractometers and of course we pass this straight on to you

Do you have any questions about our range of microscopes and refractometers?

Your KERN customer consultants are available at any time to help you further.

I hope that you enjoy working efficiently with our KERN Optics products.



Albert Sauter, Managing Director

Your advantages

fast

- 24 hour dispatch service for products in stock – order today, on its way tomorrow
- Sales & service hotline from 8:00 am to 5:00 pm

reliable

- Up to 3 years warranty
- Certified QM system
DIN EN ISO 9001

versatile

- One-stop shopping: from microscope through to refractometer – everything from one supplier
- Quick as a flash, find the product you want with the “Quick-Finder” at www.kern-sohn.com



Order hotline
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E-mail order
info@kern-sohn.com



Service hotline
+49 [0] 7433 9933-199



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Online shop
www.kern-sohn.com



Our team of consultants will assist you
from Monday to Friday
from 8:00 am to 5:00 pm



www.kern-sohn.com
Information on current product availability, product data sheets, user instructions, useful knowledge, technical glossary and much for you to download, practical topic areas, which will guide you to the right product in your industry as well as a clever test weight and balance search engine.

1 Compound microscopes

Compound, Phase contrast, Digital, Fluorescence and Inverted microscopes





OBS 101



OBS 104



OBS 106



Objectives OBS

01

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 0.5W 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 lens with rotating aperture diaphragm disc on the OBS 101 ensures the very best concentration of light and illumination of the sample. The OBS 104 and OBS 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 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)
- Triple (OBS 101) or quadplex (OBS 104, OBS 106) nosepiece
- Tube 45° (OBS 101) or 30° (OBS 104, OBS 106) inclined/360° rotatable
- Diopter adjustment: Both-sided (for binocular models)
- Overall dimensions W×D×H 130×300×310 mm
- Net weight approx. 3 kg

STANDARD



OBS 104
OBS 106

Model	Standard configuration						Price excl. of VAT ex works €
	Tube	Eyepiece	Objective quality	Objectives	Illumination	Stage	
OBS 101	Monocular	WF 10×/ø 18 mm	Achromatic	4×/10×/40×	0,5W LED (transmitted) (battery incl., rechargeable)	fix	205,-
OBS 104	Binocular	WF 10×/ø 18 mm	Achromatic		0,5W LED (transmitted) (battery incl., rechargeable)	fix	325,- ↓
OBS 106	Binocular	WF 10×/ø 18 mm	Achromatic		0,5W LED (transmitted) (battery incl., rechargeable)	mechanical	360,- ↓

↓ Price reduction

Model outfit		Model KERN			Order number	Price/piece excl. of VAT ex works €
		OBS 101	OBS 104	OBS 106		
Eyepieces (23,2 mm)	WF 10×/∅ 18 mm	✓	✓✓	✓✓	OBB-A1473	30,-
	WF 16×/∅ 13 mm	○	○○	○○	OBB-A1474	30,-
	WF 20×/∅ 11 mm	○	○○	○○	OBB-A1475	30,-
Achromatic objectives	4×/0,10 W.D. 18,0 mm	✓	✓	✓	OBB-A1476	35,-
	10×/0,25 W.D. 7,0 mm	✓	✓	✓	OBB-A1477	40,-
	40×/0,65 (spring) W.D. 0,53 mm	✓	✓	✓	OBB-A1478	45,-
	60×/0,85 (spring) W.D. 0,1 mm	○	○	○	OBB-A1479	60,-
	100×/1,25 (oil) (spring) W.D. 0,07 mm	○	○	○	OBB-A1480	65,-
	E-Plan 100×/0,80 (dry) (spring) W.D. 0,15 mm	○	○	○	OBB-A1442	170,-
	Plan 100×/1,0 (water) (spring) W.D. 0,18 mm	○	○	○	OBB-A1441	170,-
Monocular tube	45° inclined/360° rotatable	✓			OBB-A1471	
Binocular tube	<ul style="list-style-type: none"> • 30° inclined/360° rotatable • Interpupillary distance 55-75 mm • Diopter adjustment: Both-sided 		✓	✓	OBB-A1472	
Fixed stage	<ul style="list-style-type: none"> • Stage size W×D 110×120 mm • Coaxial coarse and fine focusing knobs, scale: 2,5 µm 	✓	✓			
Mechanical stage	<ul style="list-style-type: none"> • Stage size W×D 115×125 mm • Travel 75×18 mm • Coaxial coarse and fine focusing knobs, scale: 2,5 µm 			✓		
Condenser	Simple condenser N.A. 0,65	✓				
	Abbe N.A. 1,25 (aperture diaphragm)		✓	✓		
Illumination	0,5 W LED illumination system (transmitted) (rechargeable)	✓	✓	✓		
Colour filters for transmitted illumination	Blue	✓	✓	✓	OBB-A1466	19,-
	Green	○	○	○	OBB-A1467	19,-
	Yellow	○	○	○	OBB-A1468	19,-
	Gray	○	○	○	OBB-A1184	19,-

✓ = Included with delivery

○ = Option



Trinocular version



Monocular version



Objectives OBE



Simple polarising unit



Darkfield unit

EDUCATIONAL LINE

The fully equipped all-round compound microscope for school, training and laboratories

Features

- The KERN OBE series is a range of high-quality, fully-equipped compound microscopes, which can't be beaten in terms of ease of use and ergonomic design
- The strong and continuously dimmable 3 W LED guarantees optimum illumination of the samples and also ensures long service life. Mobile use of several models is also no problem through the use of rechargeable batteries
- The height-adjustable and thereby focusable 1,25 Abbe condenser with aperture diaphragm is a further quality feature of the OBE series and ensures the very best concentration of light
- Height adjustment of the fully-equipped mechanical stage is carried out using a coarse and fine focusing knob on both

- sides. The ergonomically designed coaxial drive enables you to work with the samples and move them rapidly
- A large selection of different eyepieces and objectives, a simple polarising unit and a darkfield kit 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 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

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

Applications/Samples

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

Technical data

- Finite optical system
- Quadplex nosepiece
- Siedentopf 30° inclined/360° rotatable
- Diopter adjustment: One-sided (for binocular and trinocular models)
- Overall dimensions WxDxH 320x180x365 mm
- Net weight approx. 5,5 kg

STANDARD



OPTION



Model	Standard configuration					Price excl. of VAT ex works €
	Tube	Eyepiece	Objective quality	Objectives	Illumination	
OBE 101	Monocular	HWF 10x/ø 18 mm	Achromatic	4x/10x/40x	3 W LED (transmitted)	385,- ↓
OBE 102	Binocular	HWF 10x/ø 18 mm	Achromatic		3 W LED (transmitted)	480,- ↓
OBE 103	Binocular	HWF 10x/ø 18 mm	Achromatic		3 W LED (transmitted) (battery incl., rechargeable)	550,- ↓
OBE 104	Trinocular	HWF 10x/ø 18 mm	Achromatic	4x/10x/40x/100x	3 W LED (transmitted)	590,- ↓
OBE 111	Monocular	HWF 10x/ø 18 mm	Achromatic		3 W LED (transmitted)	450,-
OBE 112	Binocular	HWF 10x/ø 18 mm	Achromatic		3 W LED (transmitted)	540,- ↓
OBE 113	Binocular	HWF 10x/ø 18 mm	Achromatic		3 W LED (transmitted) (battery incl., rechargeable)	610,- ↓
OBE 114	Trinocular	HWF 10x/ø 18 mm	Achromatic		3 W LED (transmitted)	650,- ↓

↓ Price reduction

Model outfit		Model KERN				Order number	Price/piece excl. of VAT ex works €
		OBE 101	OBE 102	OBE 103	OBE 104		
Eyepieces (23,2 mm)	HWF 10×/∅ 18 mm	✓	✓✓	✓✓	✓✓	OBB-A1403	45,-
	WF 16×/∅ 13 mm	○	○○	○○	○○	OBB-A1354	45,-
	HWF 10×/∅ 18 mm (with Pointer)	○	○	○	○	OBB-A1348	40,-
	HWF 10×/∅ 18 mm (reticule 0,1 mm) (non-adjustable)	○	○	○	○	OBB-A1349	60,-
Achromatic objectives	4×/0,10 W.D. 18,6 mm	✓	✓	✓	✓	OBB-A1111	35,-
	10×/0,25 W.D. 6,5 mm	✓	✓	✓	✓	OBB-A1108	45,-
	40×/0,65 (spring) W.D. 0,47 mm	✓	✓	✓	✓	OBB-A1112	70,-
	100×/1,25 (oil) (spring) W.D. 0,07 mm	○	○	○	○	OBB-A1109	105,-
	20×/0,40 (spring) W.D. 1,75 mm	○	○	○	○	OBB-A1110	85,-
	60×/0,85 (spring) W.D. 0,1 mm	○	○	○	○	OBB-A1113	105,-
	E-Plan 100×/0,80 (dry) (spring) W.D. 0,15 mm	○	○	○	○	OBB-A1442	170,-
	Plan 100×/1,0 (water) (spring) W.D. 0,18 mm	○	○	○	○	OBB-A1441	170,-
Monocular tube	30° inclined/360° rotatable	✓				OBB-A1227	
Binocular tube	<ul style="list-style-type: none"> • Siedentopf 30° inclined/360° rotatable • Interpupillary distance 50 – 75 mm • Diopter adjustment: One-sided 		✓	✓		OBB-A1123	
Trinocular tube	<ul style="list-style-type: none"> • see binocular tube • Light distribution 20:80 				✓	OBB-A1341	
Mechanical stage	<ul style="list-style-type: none"> • Stage size W×D 125×115 mm • Travel 50×70 mm • Coaxial coarse and fine focusing knobs, scale: 2 µm 	✓	✓	✓	✓		
Condenser	Abbe N.A. 1,25 (aperture diaphragm)	✓	✓	✓	✓	OBB-A1101	85,-
Darkfield unit	Usable for 4× – 40× objectives	○	○	○	○	OBB-A1148	85,-
Polarising unit	Analyser/Polariser	○	○	○	○	OBB-A1276	265,-
Illumination	3 W LED illumination system (transmitted) (non-rechargeable)	✓	✓		✓		
	3 W LED illumination system (transmitted) (rechargeable)			✓			
Colour filters for transmitted illumination	Blue	○	○	○	○	OBB-A1466	19,-
	Green	○	○	○	○	OBB-A1467	19,-
	Yellow	○	○	○	○	OBB-A1468	19,-
	Gray	○	○	○	○	OBB-A1184	19,-
C-Mount	0,5× (focus adjustable)				○	OBB-A1137	160,-
	1×				○	OBB-A1139	100,-

✓ = Included with delivery

○ = Option

Compound microscope KERN OBE-1

Model outfit		Model KERN				Order number	Price/piece excl. of VAT ex works €
		OBE 111	OBE 112	OBE 113	OBE 114		
Eyepieces (23,2 mm)	HWF 10×/∅ 18 mm	✓	✓✓	✓✓	✓✓	OBB-A1403	45,-
	WF 16×/∅ 13 mm	○	○○	○○	○○	OBB-A1354	45,-
	HWF 10×/∅ 18 mm (with Pointer)	○	○	○	○	OBB-A1348	40,-
	HWF 10×/∅ 18 mm (reticule 0,1 mm) (non-adjustable)	○	○	○	○	OBB-A1349	60,-
Achromatic objectives	4×/0,10 W.D. 18,6 mm	✓	✓	✓	✓	OBB-A1111	35,-
	10×/0,25 W.D. 6,5 mm	✓	✓	✓	✓	OBB-A1108	45,-
	40×/0,65 (spring) W.D. 0,47 mm	✓	✓	✓	✓	OBB-A1112	70,-
	100×/1,25 (oil) (spring) W.D. 0,07 mm	✓	✓	✓	✓	OBB-A1109	105,-
	20×/0,40 (spring) W.D. 1,75 mm	○	○	○	○	OBB-A1110	85,-
	60×/0,85 (spring) W.D. 0,1 mm	○	○	○	○	OBB-A1113	105,-
	E-Plan 100×/0,80 (dry) (spring) W.D. 0,15 mm	○	○	○	○	OBB-A1442	170,-
	Plan 100×/1,0 (water) (spring) W.D. 0,18 mm	○	○	○	○	OBB-A1441	170,-
Monocular tube	30° inclined/360° rotatable	✓				OBB-A1227	
Binocular tube	<ul style="list-style-type: none"> • Siedentopf 30° inclined/360° rotatable • Interpupillary distance 50 – 75 mm • Diopter adjustment: One-sided 		✓	✓		OBB-A1123	
Trinocular tube	<ul style="list-style-type: none"> • see binocular tube • Light distribution 20:80 				✓	OBB-A1341	
Mechanical stage	<ul style="list-style-type: none"> • Stage size W×D 125×115 mm • Travel 50×70 mm • Coaxial coarse and fine focusing knobs, scale: 2 µm 	✓	✓	✓	✓		
Condenser	Abbe N.A. 1,25 (aperture diaphragm)	✓	✓	✓	✓	OBB-A1101	85,-
Darkfield unit	Usable for 4× – 40× objectives	○	○	○	○	OBB-A1148	85,-
Polarising unit	Analyser/Polariser	○	○	○	○	OBB-A1276	265,-
Illumination	3 W LED illumination system (transmitted) (non-rechargeable)	✓	✓		✓		
	3 W LED illumination system (transmitted) (rechargeable)			✓			
Colour filters for transmitted illumination	Blue	○	○	○	○	OBB-A1466	19,-
	Green	○	○	○	○	OBB-A1467	19,-
	Yellow	○	○	○	○	OBB-A1468	19,-
	Gray	○	○	○	○	OBB-A1184	19,-
C-Mount	0,5× (focus adjustable)				○	OBB-A1137	160,-
	1×				○	OBB-A1139	100,-

✓ = Included with delivery

○ = Option

01

01



Trinocular version



Simple polarising attachment

LAB LINE

The high-performance compound microscope for every laboratory with fixed, pre-centred Koehler illumination

Features

- The KERN OBF models are excellent, stable laboratory microscopes for all common routine applications. A central feature of this adaptable, robust microscope series is the stable mechanism which can be adjusted precisely
- Depending on the application, there is a choice of models with strong, continuously dimmable 3 W LED or 20 W halogen illumination (Philips)
- 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 and a simple polarising unit 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, oncology, entomology, vets, water analysis and breweries

Applications/Samples

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

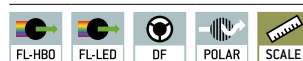
Technical data

- Finite optical system (DIN)
- Quadplex nosepiece
- Siedentopf 30° inclined/360° rotatable
- Diopter adjustment: One-sided
- Overall dimensions W×D×H 395×200×380 mm
- Net weight approx. 6,7 kg

STANDARD



OPTION



Model	Standard configuration					Price excl. of VAT ex works €
	Tube	Eyepiece	Objective quality	Objectives	Illumination	
OBF 121	Binocular	HWF 10×/∅ 18 mm	Achromatic	4×/10×/40×/100×	6 V/20 W Halogen (transmitted)	750,- ↓
OBF 122	Binocular	HWF 10×/∅ 18 mm	Plan		6 V/20 W Halogen (transmitted)	860,- ↓
OBF 123	Binocular	HWF 10×/∅ 18 mm	Plan		3 W LED (transmitted)	840,- ↓
OBF 131	Trinocular	HWF 10×/∅ 18 mm	Achromatic		6 V/20 W Halogen (transmitted)	860,- ↓
OBF 132	Trinocular	HWF 10×/∅ 18 mm	Plan		6 V/20 W Halogen (transmitted)	970,- ↓
OBF 133	Trinocular	HWF 10×/∅ 18 mm	Plan		3 W LED (transmitted)	950,- ↓

↓ Price reduction

Model outfit		Model KERN						Order number	Price/piece excl. of VAT ex works €
		OBF 121	OBF 131	OBF 122	OBF 132	OBF 123	OBF 133		
Eyepieces (23,2 mm)	HWF 10×/∅ 18 mm	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	OBB-A1403	45,-
	WF 16×/∅ 13 mm	○	○	○	○	○	○	OBB-A1354	45,-
	HWF 10×/∅ 18 mm (with Pointer)	○	○	○	○	○	○	OBB-A1348	40,-
	HWF 10×/∅ 18 mm (reticule 0,1 mm) (non-adjustable)	○	○	○	○	○	○	OBB-A1349	60,-
Achromatic objectives	4×/0,10 W.D. 18,6 mm	✓	✓					OBB-A1111	35,-
	10×/0,25 W.D. 6,5 mm	✓	✓					OBB-A1108	45,-
	40×/0,65 (spring) W.D. 0,47 mm	✓	✓					OBB-A1112	70,-
	100×/1,25 (oil) (spring) W.D. 0,07 mm	✓	✓					OBB-A1109	105,-
	20×/0,40 (spring) W.D. 1,75 mm	○	○					OBB-A1110	85,-
	60×/0,85 (spring) W.D. 0,1 mm	○	○					OBB-A1113	105,-
Plan objectives	4×/0,10 W.D. 14,5 mm			✓	✓	✓	✓	OBB-A1255	65,-
	10×/0,25 W.D. 5,65 mm			✓	✓	✓	✓	OBB-A1238	80,-
	40×/0,65 (spring) W.D. 0,85 mm			✓	✓	✓	✓	OBB-A1256	115,-
	100×/1,25 (oil) (spring) W.D. 0,07 mm			✓	✓	✓	✓	OBB-A1239	150,-
	20×/0,40 (spring) W.D. 1,5 mm			○	○	○	○	OBB-A1249	115,-
	60×/0,85 (spring) W.D. 0,07 mm			○	○	○	○	OBB-A1269	155,-
	100×/1,0 (water) (spring) W.D. 0,18 mm	○	○	○	○	○	○	OBB-A1441	170,-
Binocular tube	<ul style="list-style-type: none"> • Siedentopf 30° inclined/360° rotatable • Interpupillary distance 50 – 75 mm (for non-infinity system) • Diopter adjustment: One-sided 	✓	○	✓	○	✓	○	OBB-A1129	
Trinocular tube	<ul style="list-style-type: none"> • Siedentopf 30° inclined/360° rotatable • Interpupillary distance 50 – 75 mm • Light distribution 20:80 (for non-infinity system) • Diopter adjustment: One-sided 	○	✓	○	✓	○	✓	OBB-A1345	
Mechanical stage	<ul style="list-style-type: none"> • Stage size W×D 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	85,-
Darkfield condenser	N.A. 0,85 – 0,91 (dry, paraboloid)	○	○	○	○	○	○	OBB-A1422	230,-
Illumination	6 V/20 W Halogen spare bulb (transmitted)	✓	✓	✓	✓			OBB-A1370	25,-
	3 W LED illumination system (transmitted) (non-rechargeable)					✓	✓		
Polarising unit	Analyser/Polariser	○	○	○	○	○	○	OBB-A1277	265,-
Colour filters for transmitted illumination	Blue (built-in)	✓	✓	✓	✓	✓	✓		
	Green	○	○	○	○	○	○	OBB-A1188	19,-
	Yellow	○	○	○	○	○	○	OBB-A1165	19,-
	Gray	○	○	○	○	○	○	OBB-A1183	19,-
C-Mount	0,47× (focus adjustable)		○		○		○	OBB-A1135	160,-
	1×		○		○		○	OBB-A1142	100,-

✓ = Included with delivery

○ = Option

01



Trinocular version



Simple polarising attachment

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
- Depending on the application, there is a choice of models with strong, continuously dimmable 3 W LED or 20 W halogen illumination (Philips)
- 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 HBO and 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, oncology, entomology, vets, water analysis and breweries

Applications/Samples

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

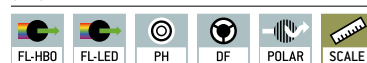
Technical data

- Infinity optical system
- Quadplex nosepiece
- Siedentopf 30° inclined/360° rotatable
- Diopter adjustment: One-sided
- Overall dimensions W×D×H 395×200×380 mm
- Net weight approx. 6,7 kg

STANDARD



OPTION



Model	Standard configuration					Price excl. of VAT ex works €
	Tube	Eyepiece	Objective quality	Objectives	Illumination	
KERN						
OBL 125	Binocular	HWF 10×/∅ 20 mm	Infinity E-Plan	4×/10×/40×/100×	6 V/20 W Halogen (transmitted)	910,- ↓
OBL 127	Binocular	HWF 10×/∅ 20 mm	Infinity E-Plan		3 W LED (transmitted)	910,- ↓
OBL 135	Trinocular	HWF 10×/∅ 20 mm	Infinity E-Plan		6 V/20 W Halogen (transmitted)	1020,- ↓
OBL 137	Trinocular	HWF 10×/∅ 20 mm	Infinity E-Plan		3 W LED (transmitted)	1020,- ↓

↓ Price reduction

Model outfit		Model KERN				Order number	Price/piece excl. of VAT ex works €
		OBL 125	OBL 135	OBL 127	OBL 137		
Eyepieces (23,2 mm)	HWF 10×/∅ 20 mm	✓✓	✓✓	✓✓	✓✓	OBB-A1404	95,-
	WF 16×/∅ 13 mm	○	○	○	○	OBB-A1354	45,-
	HWF 10×/∅ 20 mm (with Pointer)	○	○	○	○	OBB-A1448	80,-
Infinity E-Plan objectives	4×/0,10 W.D. 12,1 mm	✓	✓	✓	✓	OBB-A1161	90,-
	10×/0,25 W.D. 2,1 mm	✓	✓	✓	✓	OBB-A1159	150,-
	40×/0,65 (spring) W.D. 0,58 mm	✓	✓	✓	✓	OBB-A1160	265,-
	100×/1,25 (oil) (spring) W.D. 0,19 mm	✓	✓	✓	✓	OBB-A1158	335,-
	Plan 20×/0,40 (spring) W.D. 2,41 mm	○	○	○	○	OBB-A1250	265,-
	Plan 60×/0,80 (spring) W.D. 0,33 mm	○	○	○	○	OBB-A1270	360,-
	Plan 100×/1,15 (water) (spring) W.D. 0,18 mm	○	○	○	○	OBB-A1437	445,-
Binocular tube	<ul style="list-style-type: none"> Siedentopf 30° inclined/360° rotatable Interpupillary distance 50 – 75 mm (for infinity system) Diopter adjustment: One-sided 	✓	○	✓	○	OBB-A1130	
Trinocular tube	<ul style="list-style-type: none"> Siedentopf 30° inclined/360° rotatable Interpupillary distance 50 – 75 mm Light distribution 20:80 (for infinity system) Diopter adjustment: One-sided 	○	✓	○		OBB-A1346	
					✓	OBB-A1549	
Mechanical stage	<ul style="list-style-type: none"> Stage size W×D 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	85,-
Darkfield condenser	N.A. 0,85 – 0,91 (dry, paraboloid)	○	○	○	○	OBB-A1422	230,-
Illumination	6 V/20 W Halogen spare bulb (transmitted)	✓	✓			OBB-A1370	25,-
	3 W LED illumination system (transmitted) (non-rechargeable)			✓	✓		
Polarising unit	Analyser/Polariser	○	○	○	○	OBB-A1277	265,-
Phase contrast units (including PH-condenser and PH-slides)	Single unit with ∞ PH-Plan objective 10×	○	○	○	○	OBB-A1215	310,-
	Single unit with ∞ PH-Plan objective 20×	○	○	○	○	OBB-A1217	350,-
	Single unit with ∞ PH-Plan objective 40×	○	○	○	○	OBB-A1219	420,-
	Single unit with ∞ PH-Plan objective 100×	○	○	○	○	OBB-A1213	510,-
	If required, there are several magnification levels, please contact our OPTICS product management team						
Fluorescence unit	100 W HBO Epi Fluorescence unit, three-hole slide (B/G) including centering objective	○	○	○	○	OBB-A1154	2350,-
	3 W LED Epi Fluorescence unit, three-hole slide (B/G) including centering objective	○	○	○	○	OBB-A1157	3110,-
Colour filters for transmitted illumination	Blue (built-in)	✓	✓	✓	✓		
	Green	○	○	○	○	OBB-A1188	19,-
	Yellow	○	○	○	○	OBB-A1165	19,-
	Gray	○	○	○	○	OBB-A1183	19,-
C-Mount	0,47× (focus adjustable)	○	○	○		OBB-A1135	160,-
	0,5× (focus adjustable)				○	OBB-A1515	185,-
	1×	○	○	○		OBB-A1142	100,-
					○	OBB-A1514	120,-

✓ = Included with delivery

○ = Option

01



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
- A strong and continuously adjustable 20 W halogen illumination unit (Philips) ensures the optimum lighting conditions
- A special fixed, pre-centred phase contrast condenser with aperture diaphragm as well as field diaphragm give you a simplified Koehler 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 polarising 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, vets, water analysis and 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
- Quadplex nosepiece
- Siedentopf 30° inclined/360° rotatable
- Diopter adjustment: One-sided
- Overall dimensions W×D×H 395×200×380 mm
- Net weight approx. 6,7 kg

STANDARD



OPTION



Model	Standard configuration					Price excl. of VAT ex works €
	Tube	Eyepiece	Objective quality	Objectives	Illumination	
KERN						
OBL 145	Binocular	HWF 10×/ø 20 mm	Infinity E-Plan/ Plan	4×/PH10×/ PH40×/100×	6 V/20 W Halogen (transmitted)	1420,- ↓
OBL 155	Trinocular	HWF 10×/ø 20 mm	Infinity E-Plan/ Plan		6 V/20 W Halogen (transmitted)	1530,- ↓

↓ Price reduction

Model outfit		Model KERN		Order number	Price/piece excl. of VAT ex works €
		OBL 145	OBL 155		
Eyepieces (23,2 mm)	HWF 10×/∅ 20 mm	✓✓	✓✓	OBB-A1404	95,-
	WF 16×/∅ 13 mm	○○	○○	OBB-A1354	45,-
	HWF 10×/∅ 20 mm (with Pointer)	○	○	OBB-A1448	80,-
Infinity E-Plan objectives	4×/0,10 W.D. 12,1 mm	✓	✓	OBB-A1161	90,-
	10×/0,25 W.D. 2,1 mm	○	○	OBB-A1159	150,-
	40×/0,65 (spring) W.D. 0,58 mm	○	○	OBB-A1160	265,-
	100×/1,25 (oil) (spring) W.D. 0,19 mm	✓	✓	OBB-A1158	335,-
	Plan 20×/0,40 (spring) W.D. 2,41 mm	○	○	OBB-A1250	265,-
	Plan 60×/0,80 (spring) W.D. 0,33 mm	○	○	OBB-A1270	360,-
	Plan 100×/1,15 (water) (spring) W.D. 0,18 mm	○	○	OBB-A1437	445,-
Binocular tube	<ul style="list-style-type: none"> • Siedentopf 30° inclined/360° rotatable • Interpupillary distance 50 – 75 mm (for infinity system) • Diopter adjustment: One-sided 	✓	○	OBB-A1130	
Trinocular tube	<ul style="list-style-type: none"> • Siedentopf 30° inclined/360° rotatable • Interpupillary distance 50 – 75 mm • Light distribution 20:80 (for infinity system) • Diopter adjustment: One-sided 	○	✓	OBB-A1549	
Mechanical stage	<ul style="list-style-type: none"> • Stage size W×D 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 bright field and phase contrast	✓	✓	OBB-A1398	150,-
Phase contrast units	Infinity PH-Plan objective 10×	✓	✓	OBB-A1390	170,-
	Infinity PH-Plan objective 20×	○	○	OBB-A1391	200,-
	Infinity PH-Plan objective 40×	✓	✓	OBB-A1392	260,-
	Infinity PH-Plan objective 100×	○	○	OBB-A1393	345,-
	PH slide 10×	✓	✓	OBB-A1399	75,-
	PH slide 20×	○	○	OBB-A1400	75,-
	PH slide 40×	✓	✓	OBB-A1401	75,-
	PH slide 100×	○	○	OBB-A1402	75,-
	Centering eyepiece	✓	✓		
Darkfield condenser	N.A. 0,85 – 0,91 (dry, paraboloid)	○	○	OBB-A1422	230,-
Illumination	6 V/20 W Halogen spare bulb (transmitted)	✓	✓	OBB-A1370	25,-
Colour filters for transmitted illumination	Blue (built-in)	✓	✓		
	Green	✓	✓	OBB-A1188	19,-
	Yellow	○	○	OBB-A1165	19,-
	Gray	○	○	OBB-A1183	19,-
C-Mount	0,5× (focus adjustable)		○	OBB-A1515	185,-
	1×		○	OBB-A1514	120,-

For further optional accessories, please see the list of items for the OBL-12 and OBL-13 series from page 17

✓ = Included with delivery

○ = Option



Easy connection to the PC, Laptop not included in delivery. Please find the description of the software in chapter 8 (p. 93)

LAB LINE

The digital all-round talent for your applications, documentation and live transmissions through an integrated camera

Features

- The KERN OBD is an excellent, stable laboratory microscope with integrated camera and infinity optical system, based on the OBL series
- A strong and continuously adjustable 20 W halogen illumination unit (Philips) ensures the optimum lighting conditions
- 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, a simple polarising unit as well as phase contrast units are available to you as accessories
- Multi-lingual software, USB cable, calibration scale as well as a protective dust cover, eye cups and multi-lingual user instructions are included in the scope of delivery
- 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, vets, water analysis and breweries, if necessary, for training where there will be lots of people observing the screen/beamer at the same time

Applications/Samples

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

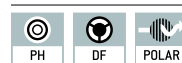
Technical data

- Infinity optical system
- Quadplex nosepiece
- Siedentopf 30° inclined/360° rotatable
- Diopter adjustment: One-sided
- Overall dimensions WxDxH 395x200x430 mm
- Net weight approx. 7 kg

STANDARD



OPTION



Model	Standard configuration					Price excl. of VAT ex works €
	Tube	Eyepiece	Objective quality	Objectives	Illumination	
KERN OBD 127	Binocular/3MP digital/USB 2.0	HWF 10x/φ 20 mm	Infinity E-Plan	4x/10x/40x/100x	6 V/20 W Halogen (transmitted)	1510,- ↓
KERN OBD 128	Binocular/5MP digital/USB 2.0	HWF 10x/φ 20 mm	Infinity E-Plan		6 V/20 W Halogen (transmitted)	1600,- ↓

↓ Price reduction

Compound microscope KERN OBD-1

Model outfit		Model KERN		Order number	Price/piece excl. of VAT ex works €
		OBD 127	OBD 128		
Eyepieces (23,2 mm)	HWF 10×/∅ 20 mm	✓✓	✓✓	OBB-A1404	95,-
	WF 16×/∅ 13 mm	○○	○○	OBB-A1354	45,-
	HWF 10×/∅ 20 mm (with Pointer)	○	○	OBB-A1448	80,-
Infinity E-Plan objectives	4×/0,10 W.D. 12,1 mm	✓	✓	OBB-A1161	90,-
	10×/0,25 W.D. 2,1 mm	✓	✓	OBB-A1159	150,-
	40×/0,65 (spring) W.D. 0,58 mm	✓	✓	OBB-A1160	265,-
	100×/1,25 (oil) (spring) W.D. 0,19 mm	✓	✓	OBB-A1158	335,-
	Plan 20×/0,40 (spring) W.D. 2,41 mm	○	○	OBB-A1250	265,-
	Plan 60×/0,80 (spring) W.D. 0,33 mm	○	○	OBB-A1270	360,-
	Plan 100×/1,15 (water) (spring) W.D. 0,18 mm	○	○	OBB-A1437	445,-
Digital tube Trinocular (3MP)	<ul style="list-style-type: none"> • 30° inclined/360° rotatable • Interpupillary distance 50 – 75 mm • Diopter adjustment: One-sided • Light distribution 80:20 • Built-in digital 3MP Camera with ½" CMOS • USB port for PC without extra power supply • With multilingual (DE, EN, FR, IT, ES) software "Microscope VIS" for Windows XP, Vista, 7, 8, 10 	✓		OBB-A1126	
Digital tube Trinocular (5MP)	<ul style="list-style-type: none"> • 30° inclined/360° rotatable • Interpupillary distance 50 – 75 mm • Diopter adjustment: One-sided • Light distribution 80:20 • Built-in digital 5 MP Camera with ½,5" CMOS • USB port for PC without extra power supply • With multilingual (DE, EN, FR, IT, ES) software "Microscope VIS" for Windows XP, Vista, 7, 8, 10 		✓	OBB-A1127	
Object micrometer	For calibrating the software measuring function, 0.01 mm division	✓	✓	OBB-A1224	70,-
Mechanical stage	<ul style="list-style-type: none"> • Stage size W×D 145×130 mm • Travel 76×52 mm • Two slide holder • Coaxial coarse and fine focusing knobs, scale: 2 µm 	✓	✓		
Condenser	Abbe N.A. 1,25 precentered (aperture diaphragm)	✓	✓	OBB-A1103	85,-
Darkfield condenser	N.A. 0,85 – 0,91 (dry, paraboloid)	○	○	OBB-A1422	230,-
Illumination	6 V/20 W Halogen spare bulb (transmitted)	✓	✓	OBB-A1370	25,-
Polarising unit	Analyser/Polariser	○	○	OBB-A1277	265,-
Phase contrast units (including PH-condenser and PH-slides)	Single unit with ∞ PH-Plan objective 10×	○	○	OBB-A1215	310,-
	Single unit with ∞ PH-Plan objective 20×	○	○	OBB-A1217	350,-
	Single unit with ∞ PH-Plan objective 40×	○	○	OBB-A1219	420,-
	Single unit with ∞ PH-Plan objective 100×	○	○	OBB-A1213	510,-
If required, there are several magnification levels, please contact our OPTICS product management team					
Colour filters for transmitted illumination	Blue (built-in)	✓	✓		
	Green	○	○	OBB-A1188	19,-
	Yellow	○	○	OBB-A1165	19,-
	Gray	○	○	OBB-A1183	19,-

✓ = Included with delivery

○ = Option

01

01



Abbe condenser center-adjustable, also available with swing-out lens



Butterfly Tube (optionally available)

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 transmitted illumination (Philips)
- 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, Butterfly Tube, through to complete 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. 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, vets, water analysis and breweries

Applications/Samples

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

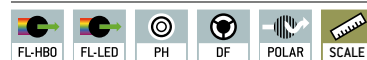
Technical data

- Infinity optical system
- Quintuple nosepiece
- Siedentopf 30° inclined/360° rotatable
- Diopter adjustment: Both-sided
- Overall dimensions W×D×H 390×200×400 mm
- Net weight approx. 9 kg

STANDARD



OPTION



Model	Standard configuration					Price excl. of VAT ex works €
	Tube	Eyepiece	Objective quality	Objectives	Illumination	
KERN						
OBN 132	Trinocular	HWF 10×/ø 20 mm	Infinity Plan	4×/10×/20×/ 40×/100×	6 V/20 W Halogen (transmitted)	1370,- ↓
OBN 135	Trinocular	HWF 10×/ø 20 mm	Infinity Plan		3 W LED (transmitted)	1390,- ↓

↓ Price reduction

Model outfit		Model KERN		Order number	Price/piece excl. of VAT ex works €
		OBN 132	OBN 135		
Eyepieces (23,2 mm)	HWF 10×/∅ 20 mm	✓✓	✓✓	OBB-A1404	95,-
	WF 16×/∅ 13 mm	○○	○○	OBB-A1354	45,-
Infinity Plan achromatic objectives	4×/0,10 W.D. 12,1 mm	✓	✓	OBB-A1263	110,-
	10×/0,25 W.D. 4,64 mm	✓	✓	OBB-A1243	195,-
	20×/0,40 (spring) W.D. 2,41 mm	✓	✓	OBB-A1250	265,-
	40×/0,66 (spring) W.D. 0,65 mm	✓	✓	OBB-A1257	290,-
	100×/1,25 (oil) (spring) W.D. 0,19 mm	✓	✓	OBB-A1240	315,-
	2,5×/0,07 W.D. 8,47 mm	○	○	OBB-A1247	265,-
	Plan 60×/0,80 (spring) W.D. 0,33 mm	○	○	OBB-A1270	360,-
	Plan 100×/1,15 (water) (spring) W.D. 0,18 mm	○	○	OBB-A1437	445,-
Trinocular tube	• Siedentopf 30° inclined/360° rotatable • Interpupillary distance 50 – 75 mm • Light distribution 100:0 • Diopter adjustment: Both-sided	✓	✓		
	• Butterfly 30° inclined/360° rotatable • Interpupillary distance 50 – 75 mm • Light distribution 100:0 • Diopter adjustment: Both-sided	○	○	OBB-A1382	520,-
Mechanical stage	• Stage size W×D 175×145 mm • Travel 78×55 mm • Coaxial coarse and fine focusing knobs • Two slide holder	✓	✓		
Condenser	Abbe N.A. 1,25 center-adjustable (aperture diaphragm)	✓	✓	OBB-A1102	85,-
	Swing-out condenser N.A. 0,9/0,13 center-adjustable (aperture diaphragm)	○	○	OBB-A1104	220,-
Darkfield condenser	N.A. 0,85 – 0,91 (dry, paraboloid)	○	○	OBB-A1421	265,-
Koehler illumination	6 V/20 W Halogen spare bulb (transmitted)	✓		OBB-A1370	25,-
	3 W LED illumination system (transmitted) (non-rechargeable)		✓		
Polarising unit	Analyser/Polariser	○	○	OBB-A1283	265,-
Phase contrast units	Quintuple hole turret with 10×/20×/40×/100× Infinity-PH-Plan objectives (complete set)	○	○	OBB-A1237	1570,-
	Single unit with ∞ PH-Plan objective 10×	○	○	OBB-A1214	310,-
	Single unit with ∞ PH-Plan objective 20×	○	○	OBB-A1216	350,-
	Single unit with ∞ PH-Plan objective 40×	○	○	OBB-A1218	420,-
	Single unit with ∞ PH-Plan objective 100×	○	○	OBB-A1212	510,-
	If required, there are several magnification levels, please contact our OPTICS product management team				
C-Mount	1×	○	○	OBB-A1140	100,-
	0,57× (focus adjustable)	○	○	OBB-A1136	160,-
Fluorescence unit	100 W HBO Epi Fluorescence unit 6-filter disc (UV/V/B/G) including centering objective	○	○	OBB-A1155	4340,-
	100 W HBO Epi Fluorescence unit, two-hole slide (B/G) including centering objective	○	○	OBB-A1153	3080,-
	3 W LED Epi Fluorescence unit (B/G) including centering objective	○	○	OBB-A1156	3110,-
Colour filters for transmitted illumination	Blue	✓			
	Green	○	○	OBB-A1188	19,-
	Yellow	○	○	OBB-A1165	19,-
	Gray	○	○	OBB-A1183	19,-

✓ = Included with delivery

○ = Option

01



Mounted phase contrast condenser



Quintuple PH universal rotary condenser with 10×/20×/40×/100× Infinity PH-Plan objectives (complete set)

PROFESSIONAL LINE

The powerful, fully-equipped phase contrast microscope with varied options

Features

- This series stands out through its wide-ranging phase-contrast feature which goes beyond the standard OBN level of quality
- A strong and continuously adjustable 20 W halogen transmitted illumination unit (Philips) ensures the optimum illumination of your samples
- This series has a professional Koehler illumination unit with a special height-adjustable PH universal rotary condenser which can be centred as well as an aperture diaphragm and field 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
- The combination of a professional quintuple condenser wheel, the phase contrast condenser and the Infinity Plan phase contrast objectives makes the KERN OBN 158 a high-quality, fully-equipped microscope for all applications related to contrast procedures
- A wide variety of modular systems, such as, for example, a swing-out condenser, various eyepieces, objectives, colour filters, a darkfield condenser, a simple polarising unit, Butterfly Tube, through to complete fluorescence units are available to you as accessories
- 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. 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, vets, water analysis and breweries

Applications/Samples

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

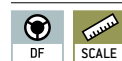
Technical data

- Infinity optical system
- Quintuple nosepiece
- Siedentopf 30° inclined/360° rotatable
- Diopter adjustment: Both-sided
- Overall dimensions W×D×H 390×200×400 mm
- Net weight approx. 9 kg

STANDARD



OPTION



Model	Standard configuration					Price excl. of VAT ex works €
	Tube	Eyepiece	Objective quality	Objectives	Illumination	
KERN						
OBN 158	Trinocular	HWF 10×/ø 20 mm	Infinity Plan	4×/PH10×/PH20×/PH40×/PH100×	6 V/20 W Halogen (transmitted)	2540,-

Price reduction

Phase contrast microscope KERN OBN-15

Model outfit		Model KERN	Order number	Price/piece excl. of VAT ex works €
		OBN 158		
Eyepieces (23,2 mm)	HWF 10×/∅ 20 mm	✓✓	OBB-A1404	95,-
	WF 16×/∅ 13 mm	○○	OBB-A1354	45,-
Infinity Plan achromatic objectives	4×/0,10 W.D. 12,1 mm	✓	OBB-A1263	110,-
	10×/0,25 W.D. 4,64 mm	○	OBB-A1243	195,-
	20×/0,40 (spring) W.D. 2,41 mm	○	OBB-A1250	265,-
	40×/0,66 (spring) W.D. 0,65 mm	○	OBB-A1257	290,-
	100×/1,25 (oil) (spring) W.D. 0,19 mm	○	OBB-A1240	315,-
	2,5×/0,07 W.D. 8,47 mm	○	OBB-A1247	265,-
	Plan 60×/0,80 (spring) W.D. 0,33 mm	○	OBB-A1270	360,-
Trinocular tube	<ul style="list-style-type: none"> • Siedentopf 30° inclined/360° rotatable • Interpupillary distance 50 - 75 mm • Light distribution 100:0 • Diopter adjustment: Both-sided 	✓		
	<ul style="list-style-type: none"> • Butterfly 30° inclined/360° rotatable • Interpupillary distance 50 - 75 mm • Light distribution 100:0 • Diopter adjustment: Both-sided 	○	OBB-A1382	520,-
Mechanical stage	<ul style="list-style-type: none"> • Stage size W×D 175×145 mm • Travel 78×55 mm • Coaxial coarse and fine focusing knobs • Two slide holder 	✓		
PH condenser	Universal rotary condenser for bright field and phase contrast suitable for 10×/20×/40×/100× PH objectives center-adjustable PH ring units; with aperture diaphragm	✓		
Phase contrast units	Infinity PH-Plan objective 10×	✓	OBB-A1390	170,-
	Infinity PH-Plan objective 20×	✓	OBB-A1391	200,-
	Infinity PH-Plan objective 40×	✓	OBB-A1392	260,-
	Infinity PH-Plan objective 100×	✓	OBB-A1393	345,-
	Centering eyepiece	✓		
Darkfield condenser	N.A. 0,85 - 0,91 (dry, paraboloid)	○	OBB-A1421	265,-
Koehler illumination	6 V/20 W Halogen spare bulb (transmitted)	✓	OBB-A1370	25,-
Colour filters for transmitted illumination	Blue	○	OBB-A1170	19,-
	Green	✓		
	Yellow	○	OBB-A1165	19,-
	Gray	○	OBB-A1183	19,-
C-Mount	1×	○	OBB-A1140	100,-
	0,57× (focus adjustable)	○	OBB-A1136	160,-

For further optional accessories, please see the list of items for the OBN-13 series from page 23

✓ = Included with delivery

○ = Option

01



OBN 141/OBN 147



Illumination unit



Sextuple filter wheel OBN 148

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
- The powerful, dimmable 20W halogen illumination unit (Philips) and a 100W Epi fluorescence incident illumination unit on the OBN 147/OBN 148 models 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 3W LED transmitted illumination unit and 3W 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
- With the OBN 147/OBN 148 halogen variant you have a filter wheel which has up to 6 fittings. As standard this is fitted with a B/G or B/G/UV/V fluorescence filter. The OBN 141 LED variant is fitted with a B/G fluorescence filter with a changeover slider as standard. The changeover slider and the filter wheel mean that you can change the stimulation filter quickly
- 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. 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, vets, water analysis and breweries

Applications/Samples

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

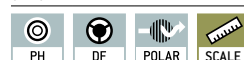
Technical data

- Infinity optical system
- Quintuple nosepiece
- Siedentopf 30° inclined/360° rotatable
- Diopter adjustment: Both-sided
- Overall dimensions WxDxH 530x220x490 mm
- Net weight approx. 23 kg

STANDARD



OPTION



Model	Standard configuration					Price excl. of VAT ex works €
	Tube	Eyepiece	Objective quality	Objectives	Illumination	
KERN						
OBN 141 <small>NEW</small>	Trinocular	WF 10x/φ 20 mm	Infinity Plan	4x/10x/20x/ 40x/100x	LED + 3 W LED Epi Fluorescence (B/G)	4470,-
OBN 147	Trinocular	WF 10x/φ 20 mm	Infinity Plan		Halogen + 100 W Epi Fluorescence (B/G)	4390,- <small>↓</small>
OBN 148	Trinocular	WF 10x/φ 20 mm	Infinity Plan		Halogen + 100 W Epi Fluorescence (B/G/UV/V)	5630,- <small>↓</small>

NEW New model

↓ Price reduction

Fluorescence microscope KERN OBN-14

Model outfit		Model KERN			Order number	Price/piece excl. of VAT ex works €
		OBN 141	OBN 147	OBN 148		
Eyepieces (23,2 mm)	WF 10×/∅ 20 mm	✓✓	✓✓	✓✓	OBB-A1351	85,-
	WF 16×/∅ 13 mm	○○	○○	○○	OBB-A1354	45,-
	WF 10×/∅ 20 mm (reticule 0,1 mm) (adjustable)	○	○	○	OBB-A1352	140,-
Infinity Plan achromatic objectives	4×/0,10 W.D. 12,1 mm	✓	✓	✓	OBB-A1263	110,-
	10×/0,25 W.D. 4,64 mm	✓	✓	✓	OBB-A1243	195,-
	20×/0,40 (spring) W.D. 2,41 mm	✓	✓	✓	OBB-A1250	265,-
	40×/0,66 (spring) W.D. 0,65 mm	✓	✓	✓	OBB-A1257	290,-
	100×/1,25 (oil) (spring) W.D. 0,19 mm	✓	✓	✓	OBB-A1240	315,-
	2,5×/0,07 W.D. 8,47 mm	○	○	○	OBB-A1247	265,-
	Plan 60×/0,80 (spring) W.D. 0,33 mm	○	○	○	OBB-A1270	360,-
Trinocular tube	<ul style="list-style-type: none"> • Siedentopf 30° inclined/360° rotatable • Interpupillary distance 50 – 75 mm • Light distribution 100:0 • Diopter adjustment: Both-sided 	✓	✓	✓		
	<ul style="list-style-type: none"> • Butterfly 30° inclined/360° rotatable • Interpupillary distance 50 – 75 mm • Light distribution 100:0 • Diopter adjustment: Both-sided 	○	○	○	OBB-A1382	520,-
Mechanical stage	<ul style="list-style-type: none"> • Stage size W×D 175×145 mm • Travel 78×55 mm • Coaxial coarse and fine focusing knobs • Two slide holder 	✓	✓	✓		
Condenser	Abbe N.A. 1,25 center-adjustable (aperture diaphragm)	✓	✓	✓	OBB-A1102	85,-
	Swing-out condenser N.A. 0,9/0,13 center-adjustable (aperture diaphragm)	○	○	○	OBB-A1104	220,-
Darkfield condenser	N.A. 0,85 – 0,91 (dry, paraboloid)	○	○	○	OBB-A1421	265,-
Koehler illumination	6 V/20 W Halogen spare bulb (transmitted)	✓	✓	✓	OBB-A1370	25,-
Polarising unit	Analyser/Polariser	○	○	○	OBB-A1283	265,-
Phase contrast units	Quintuple hole turret with 10×/20×/40×/100× Infinity-PH-Plan objectives (complete set)	○	○	○	OBB-A1237	1570,-
	Single unit with ∞ PH-Plan objective 10×	○	○	○	OBB-A1214	310,-
	Single unit with ∞ PH-Plan objective 20×	○	○	○	OBB-A1216	350,-
	Single unit with ∞ PH-Plan objective 40×	○	○	○	OBB-A1218	420,-
	Single unit with ∞ PH-Plan objective 100×	○	○	○	OBB-A1212	510,-
If required, there are several magnification levels, please contact our OPTICS product management team						
C-Mount	1×	○	○	○	OBB-A1140	100,-
	0,57× (focus adjustable)	○	○	○	OBB-A1136	160,-
Fluorescence unit	100 W HBO Epi Fluorescence unit 6-filter disc (UV/V/B/G) including centering objective			✓		
	100 W HBO Epi Fluorescence unit, two-hole slide (B/G) including centering objective		✓			
	3 W LED Epi Fluorescence unit (B/G) including centering objective	✓				
Colour filters for transmitted illumination	Blue	✓	✓	✓		
	Green	○	○	○	OBB-A1188	19,-
	Yellow	○	○	○	OBB-A1165	19,-
	Gray	○	○	○	OBB-A1183	19,-

✓ = Included with delivery

○ = Option

01



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. This design, with its large working distance, is particularly suitable for the monitoring and analysis of cell cultures, for example
- A strong and continuously adjustable 30W halogen illumination unit ensures the optimum illumination in the bright field of your samples. An additional Osram 100 W Epi fluorescence illumination unit is available to you as a fluorescence microscope (OCM 165) for perfect illumination and excitation of your fluorescence samples
- 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 (∅ 118 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
- 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 optical system
- Quintuple nosepiece
- Siedentopf 45° inclined
- Diopter adjustment: Both-sided

OCM 161

- Overall dimensions W×D×H 304×599×530 mm
- Net weight approx. 13,5 kg

OCM 165

- Overall dimensions W×D×H 304×782×530 mm
- Net weight approx. 21 kg

STANDARD



Model	Standard configuration					Price excl. of VAT ex works €
	Tube	Eyepiece	Objective quality	Objectives	Illumination	
KERN OCM 161	Trinocular	HWF 10×/∅ 22 mm	Infinity Plan	LWD10×/LWD20×/ LWD40×/LWD20×PH	6 V/30 W Halogen (transmitted)	3180,- ↓
KERN OCM 165	Trinocular	HWF 10×/∅ 22 mm	Infinity Plan		6 V/30 W Halogen + 100 W Epi Fluorescence (B/G)	7790,- ↓

↓ Price reduction

Inverted microscope KERN OCM-1

Model outfit		Model KERN		Order number	Price/piece excl. of VAT ex works €
		OCM 161	OCM 165		
Eyepieces (30 mm)	HWF 10×/∅ 22 mm (adjustable)	✓✓	✓✓	OBB-A1491	90,-
	HWF 10×/∅ 20 mm (reticule 0,1 mm) (adjustable)	○	○	OBB-A1523	140,-
Infinity Plan achromatic objectives for long working distance	4×/0,11 W.D. 12,1 mm	○	○	OBB-A1493	135,-
	10×/0,25 W.D. 8,3 mm	✓	✓	OBB-A1494	160,-
	20×/0,40 W.D. 7,2 mm	✓	✓	OBB-A1495	215,-
	40×/0,60 W.D. 3,4 mm	✓	✓	OBB-A1496	280,-
Trinocular tube	<ul style="list-style-type: none"> • 45° inclined • Interpupillary distance 48-76 mm • Light distribution 100:0 • Diopter adjustment: Both-sided 	✓	✓		
Mechanical stage	<ul style="list-style-type: none"> • Stage size W×D 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 microtitre plate 	✓	✓		
	Drop specimen holder (∅ 110)	✓	✓	OBB-A1503	30,-
	Specimen holder for 35 mm culture dish	○	○	OBB-A1505	60,-
	Specimen holder for 54 mm culture dish	✓	✓	OBB-A1506	60,-
	Specimen holder for 65 mm culture dish	○	○	OBB-A1507	60,-
Condenser	Abbe N.A. 0,3 (aperture diaphragm), LWD 72 mm	✓	✓		
Illumination	6 V/30 W Halogen spare bulb (transmitted)	✓	✓	OBB-A1372	35,-
Phase contrast units	Phase contrast slide (universal)	✓	✓	OBB-A1500	100,-
	Infinity PH-Plan objective 10×	○	○	OBB-A1497	215,-
	Infinity PH-Plan objective 20×	✓	✓	OBB-A1498	280,-
	Infinity PH-Plan objective 40×	○	○	OBB-A1499	330,-
	Centering eyepiece	✓	✓	OBB-A1544	110,-
Fluorescence unit	100 W HBO Epi Fluorescence unit, two-hole slide (B/G)		✓		
Colour filters for transmitted illumination	Blue	✓	✓	OBB-A1510	19,-
	Green	✓	✓	OBB-A1511	19,-
	Yellow	○	○	OBB-A1512	19,-
	Gray	○	○	OBB-A1513	19,-
C-Mount	0,5×	○	○	OBB-A1515	185,-
	1×	○	○	OBB-A1514	120,-

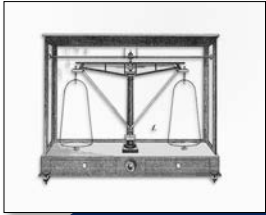
✓ = Included with delivery

○ = Option

01

KERN – Tradition and Innovation for over 170 years

An independent family business, KERN since already 8 generations is synonymous with quality and reliability in customer service.



1844

KERN is founded – precision balances are produced



1863

A proud Gottlieb Kern with his staff



1880

Pharmaceutical balance with Aesculap



1923

Inflation – KERN wages are paid with self printed currency



1980

The electronic balance ousts mechanical devices



1994

Accredited DKD laboratory (ISO 17025)



2000

New premises in Balingen



2002

Existing QM system certification in accordance with DIN EN ISO 9001:2000 standards



2007

Approval for the manufacture of medical products (DIN EN 13485 and 93/42/EEC)



2008

Authorisation for initial verification by the manufacturer (2009/23/EC)



2009

Approval for the manufacture and sale of height rods (DIN EN 13485 and 93/42/EEC)



2012

Verification point for non-automatic balances and test weights.

New customer portal www.kern-sohn.com goes live



2014

Expansion of the product range to include optical instruments (microscopes and refractometers)



2015

Inauguration of Ziegelei 2.0 with computer-controlled high-bay warehouse



2017

Come with KERN into the digital future: Expansion of the model ranges compatible with Industry 4.0, as well as the related services

KERN & SOHN GmbH Microscopes and Refractometers

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