Microscopes and Refractometers

PROFESSIONAL CARE

KERN offers you a complete, carefully compiled range of biological microscopes, stereomicroscopes, metallurgical microscopes, polarization microscopes, particularly flexible, pre-configured stereomicroscope sets, individually configurable stereomicroscope systems as well as microscope cameras and camera software.

The main fields of application are haematology, urology, gynaecology, dermatology, pathology, microbiology and parasitology, immunology, oncology, cell and tissue culture research and breeding, veterinary medicine, etc.

The KERN high-performance microscopes are particularly suitable for viewing preparations in culture vessels (bottles, trays, microtiter plates), translucent and thin, low-contrast, demanding preparations (e.g. living Mammalian cells, tissue, possibly also microorganisms, immunofluorescence, FISH, DAPI coloring etc.)

Furthermore, KERN offers a wide range of analogue and digital refractometers. Quickly and easily determine reliable measured values, no matter whether in the laboratory or on site, this ensures safety, consistent quality and accelerates the processes. This is what the analogue and digital refractometers from KERN stand for, and at an extremely attractive price in consistently high quality. The refractometers are mainly used in hospitals, doctors' surgeries, medical training facilities, nursing homes, sports medicine (doping control), veterinary surgeries, etc.

Monocular version

Trinocular version

Butterfly tube

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

Features

- The brand new 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 3 W 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 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 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
- Butterfly 30° inclined
- Monocular lens barrel 30° inclined
- 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

Model	Standard configuration				
KERN	Tube	Eyepiece	Objective quality	Objectives	Illumination
OBE 121	Monocular	HWF 10×/⌀ 18 mm	Achromatic	4×/10×/40×	3W LED (transmitted)
OBE 122	Binocular	HWF 10×/⌀ 18 mm	Achromatic		3W LED (transmitted)
OBE 124	Trinocular	HWF 10×/⌀ 18 mm	Achromatic		3W LED (transmitted)
OBE 131	Monocular	HWF 10×/⌀ 18 mm	Achromatic	4×/10×/40×/100×	3W LED (transmitted)
OBE 132	Binocular	HWF 10×/⌀ 18 mm	Achromatic		3W LED (transmitted)
OBE 134	Trinocular	HWF 10×/⌀ 18 mm	Achromatic		3W LED (transmitted)

Trinocular version

Simple polarising attachment

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 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, sewage treatment plants 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				
KERN	Tube	Eyepiece	Objective quality	Objectives	Illumination
OBL 127	Binocular	HWF 10×/ø 20 mm	Infinity E-Plan	4×/10×/40×/100×	3 W LED (transmitted)
OBL 137	Trinocular	HWF 10×/ø 20 mm	Infinity E-Plan		3 W LED (transmitted)

OBN-13

OBN-15

OBN-15: Mounted phase contrast condenser

Quintuple PH universal rotary condenser with 10×/20×/40×/100×

Infinity PH-Plan objectives (complete set, for OBN-15 included)

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)
- 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 contrast procedures
- 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
- The centring eyepiece for adjusting the phase contrast (OBN-15), a protective dust cover, eye cups as well as multi-lingual User instructions are included with the 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

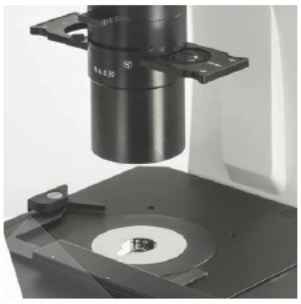
STANDARD

OPTION

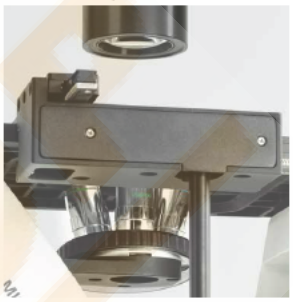
Model	Standard configuration				
KERN	Tube	Eyepiece	Objective quality	Objectives	Illumination
OBN 132	Trinocular	HWF 10×/⌀ 20 mm	Infinity Plan	4×/10×/20×/40×/100×	20 W Halogen (transmitted)
OBN 135	Trinocular	HWF 10×/⌀ 20 mm	Infinity Plan		3 W LED (transmitted)
OBN 158	Trinocular	HWF 10×/⌀ 20 mm	Infinity Plan	4×/PH10×/PH20×/PH40×/PH100×	20 W Halogen (transmitted)
OBN 159	Trinocular	HWF 10×/⌀ 20 mm	Infinity Plan		3 W LED (transmitted)

OCM 161

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

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. In addition, either an Osram 100 W-HBO- (OCM 165/166) or a 5 W-LED Epi fluorescence incident illumination unit (OCM 167/168) are available to you as a fluorescence microscope for perfect illumination and stimulation 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 (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
- 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 165-168

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

STANDARD

OCM 167/168

OCM 161

Model

Standard configuration

KERN	Tube	Eyepiece	Objective quality	Objectives	Illumination
OCM 161	Trinocular	HWF 10×/ø 22 mm	Infinity Plan	LWD10×/LWD20×/ LWD40×/LWD20×PH	30 W Halogen (transmitted)
OCM 165	Trinocular	HWF 10×/ø 22 mm	Infinity Plan		30 W Halogen + 100 W Epi Fluorescence (B/G)
OCM 166	Trinocular	HWF 10×/ø 22 mm	Infinity Plan		30 W Halogen + 100 W Epi Fluorescence (UV/V/B/G)
OCM 167	Trinocular	HWF 10×/ø 22 mm	Infinity Plan		5W-LED + 5W Epi Fluorescence (B/G)
OCM 168	Trinocular	HWF 10×/ø 22 mm	Infinity Plan		5W-LED + 5W Epi Fluorescence (UV/V/B/G)