

MICROSCOPES AND REFRACTOMETERS

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.





Trinocular version



Simple polarising unit

Discover more details and matching accessories online!

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

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
KERN					
OBL 127	Binocular	HWF 10x/ø 20 mm	Infinity E-Plan	4x / 10x / 40x / 100x	3 W LED (transmitted)
OBL 137	Trinocular	HWF 10x/ø 20 mm	Infinity E-Plan	4x / 10x / 40x / 100x	3 W LED (transmitted)



OBN-13



OBN-15



OBN-15: Mounted phase contrast condenser

Discover more details and matching accessories online!

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

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



OBN-15

OBN 135/159

OBN 132/158

Model Tube Eyepiece Objective quality Objectives Illumination

KERN

OBN 132*	Trinocular	HWF 10x/∅ 20 mm	Infinity Plan	4x / 10x / 20x / 40x / 100x	20 W Halogen (transmitted)
OBN 135	Trinocular	HWF 10x/∅ 20 mm	Infinity Plan	4x / 10x / 20x / 40x / 100x	3 W LED (transmitted)
OBN 158	Trinocular	HWF 10x/∅ 20 mm	Infinity Plan	4x / 10x / 20x / 40x / 100x	20 W Halogen (transmitted)
OBN 159	Trinocular	HWF 10x/∅ 20 mm	Infinity Plan	4x / 10x / 20x / 40x / 100x	3 W LED (transmitted)

! * ONLY WHILE STOCKS LAST



OCM 161/162



OCM 165-168



Discover more details and matching accessories online!

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 (∅ 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

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



Model Tube Eyepiece Objective quality Objectives Illumination

KERN

OCM 161	Trinocular	HWF 10x/∅ 22 mm	Infinity Plan	10x / 20x / 40x	30 W Halogen (transmitted)
OCM 162	Trinocular	HWF 10x/∅ 22 mm	Infinity Plan	10x / 20x / 40x	5 W LED (transmitted)
OCM 165	Trinocular	HWF 10x/∅ 22 mm	Infinity Plan	10x / 20x / 40x	30 W Halogen + 100 W Epi Fluorescence (B/G)
OCM 166	Trinocular	HWF 10x/∅ 22 mm	Infinity Plan	10x / 20x / 40x	30 W Halogen + 100 W Epi Fluorescence (UV/V/B/G)
OCM 167	Trinocular	HWF 10x/∅ 22 mm	Infinity Plan	10x / 20x / 40x	5 W LED + 5 W LED Epi Fluorescence (B/G)
OCM 168	Trinocular	HWF 10x/∅ 22 mm	Infinity Plan	10x / 20x / 40x	5 W LED + 5 W LED Epi Fluorescence (UV/V/B/G)

NEW New model




Discover more details and matching accessories online!

Refractive index measurement for hospitals, medical training institutions or in sports medicine

Features

- The models in the KERN ORA range are universal, maintenance-free analogue manual refractometers
- NEW: Now with engraved serial number
- 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.
- ORA 2PA: This model is particularly suitable for the measurement of the specific gravity (sg) in urine, the quantity of serum (serumproteine) in urine (doping control among athletes), and the refractive index.
- ORA 5PB: This model is particularly suitable for the measurement of the specific gravity (sg) in urine from animals such as dogs or cats and the quantity of serum (serumproteine) in urine

- The optical system and the prism cover are made of special material which allows a low-tolerance measuring.
- All models are fitted with an eyepiece which can be adjusted easily and smoothly to different visual capacities
- The models marked with "ATC" have an automatic temperature compensation which enables accurate measurement at different ambient temperatures. For models without "ATC", the results must be adjusted according to the enclosed international temperature correction table
-  Included with the delivery:
 - Storage box
 - Calibration solution
 - Pipette
 - Screwdriver
 - Cleaning cloth

Scope of application


- Hospitals
- Doctor's practise
- Medical training institutions
- Nursing homes
- Sports medicine (doping test)

Technical data

- Die-cast housing of copper-aluminium alloy, chrome coated
- With ATC: Measurement temperature: 10 °C - 30 °C
- Dimensions of the box: 205×75×55 mm
- Length: 130 - 200 mm



Model	Scales	Measuring range	Division	ATC
KERN				
ORA 32BA	Brix	0 % - 32 %	0,2 %	✓
ORA 4RR	Refractive index	1,440 nD - 1,520 nD	0,001 nD	
	Refractive index	1,3330 nD - 1,3600 nD	0,0005 nD	
ORA 2PA	Urine (spec. gravity)	1,000 sgU - 1,050 sgU	0,002 sgU	✓
	Serum protein	0 g/dl - 12 g/dl	0,2 g/dl	
ORA 5PB	Urine (s. g. cat)	1,000 sgU - 1,060 sgU	0,001 sgU	
	Urine (s. g. dog)	1,000 sgU - 1,060 sgU	0,001 sgU	
	Serum protein	2 g/dl - 14 g/dl	0,1 g/dl	

 Also available as digital hand- or laboratory versions. We will be happy to consult you.