

# KERN 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.





Illustration shows optional accessories, tablet with integrated camera KERN ODC 241, further details see Internet

## Elegant, dynamic and impressive – the new 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 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 tube which is integrated as standard and which enables you to achieve the ideal viewing angle. 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 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 are available to you as accessories
- 1 Monocular version, 2 Trinocular version, 3 Butterfly tube
- 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 model outfit list, see Internet

### Scope of application

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

### Applications/Samples

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

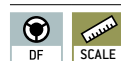
### Technical data

- Finite optical system
- Quadplex nosepiece
- Butterfly 30° inclined
- 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				
	Tube	Eyepiece	Objective quality	Objectives	Illumination
<b>KERN</b>					
<b>OBE 121</b>	Monocular	HWF 10×/ø 18 mm	Achromatic	4×/10×/40×	3W LED (transmitted)
<b>OBE 122</b>	Binocular	HWF 10×/ø 18 mm	Achromatic		3W LED (transmitted)
<b>OBE 124</b>	Trinocular	HWF 10×/ø 18 mm	Achromatic		3W LED (transmitted)
<b>OBE 131</b>	Monocular	HWF 10×/ø 18 mm	Achromatic	4×/10×/40×/100×	3W LED (transmitted)
<b>OBE 132</b>	Binocular	HWF 10×/ø 18 mm	Achromatic		3W LED (transmitted)
<b>OBE 134</b>	Trinocular	HWF 10×/ø 18 mm	Achromatic		3W LED (transmitted)



Also available as digital, trinocular and phase contrast model. KERN OBL-1 also available with EPI fluorescence illumination unit on request



The high-performance compound microscope for every laboratory, hospital and doctor's practice with fixed, pre-centred Koehler illumination

**Features**

- The KERN OBF-1 and OBL-1 models are excellent, stable laboratory microscopes for all common routine applications
- Depending on the application, there is a choice of models with strong, continuously dimmable 3 W LED or 20 W halogen illumination (Philips)
- **1** Trinocular models as well as specially pre-configured phase contrast models OBL 145/OBL 155 available, please feel free to contact us
- The fixed, pre-centred and focusable 1,25 Abbe condenser with aperture diaphragm and field diaphragm gives you a simplified Koehler illumination, the centre cannot be moved
- The large mechanical stage and its specimen holder holds up to two samples at the same time, which can be focused quickly and easily by a coaxial coarse and fine drive on both sides
- A large selection of eyepieces, **2** objectives and colour filters as well as a darkfield condenser, a simple **3** polarising unit, different **4** 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 model outfit list

Please refer to the website for further details as well as information on the full range of model features

**Scope of application**

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

**Applications/Samples**

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

**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



OBL 12-13 OBL 14-15

OPTION



OPTION OBL 12-13



Model	Standard configuration					
	Tube	Eyepiece	Objective quality	Objectives	Illumination	
<b>KERN</b>						
<b>OBL 125*</b>	Binocular	HWF 10×/ø 20 mm	Infinity E-Plan	4×/10×/ 40×/100×	6 V/20 W Halogen (transmitted)	↓
<b>OBL 127</b>	Binocular	HWF 10×/ø 20 mm	Infinity E-Plan		3 W LED (transmitted)	↓
<b>OBL 135*</b>	Trinocular	HWF 10×/ø 20 mm	Infinity E-Plan	4×/PH10×/ PH40×/100×	6 V/20 W Halogen (transmitted)	↓
<b>OBL 137</b>	Trinocular	HWF 10×/ø 20 mm	Infinity E-Plan		3 W LED (transmitted)	↓
<b>OBL 145</b>	Binocular	HWF 10×/ø 20 mm	Infinity E-Plan/ Plan	4×/PH10×/ PH40×/100×	20 W Halogen (transmitted)	↓
<b>OBL 155</b>	Trinocular	HWF 10×/ø 20 mm	Plan		20 W Halogen (transmitted)	↓

\* Only while stocks last!



OBN-13



OBN-15



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

Also available as fluorescence microscope

**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 halogen variant is available as a pre-configured phase contrast microscope, which, through the combination of a 2 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
- 1 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
- This centring eyepiece for adjusting the phase contrast (OBN 158), 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 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 WxDxH 390x200x400 mm
- Net weight approx. 9 kg

Please refer to the website for further details as well as information on the full range of model features

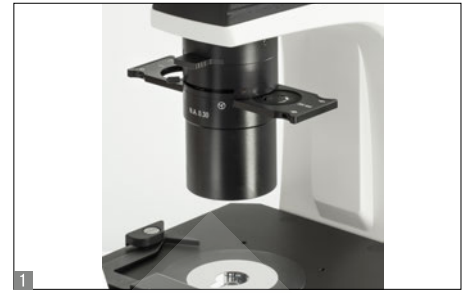
STANDARD

360° TRINO ABBE HAL LED PH INFINITY 230 V 1 DAY

OPTION

FL-HBO FL-LED DF POLAR SCALE

Model	Standard configuration				
	Tube	Eyepiece	Objective quality	Objectives	Illumination
<b>KERN</b>					
<b>OBN 132</b>	Trinocular	HWF 10x/φ 20 mm	Infinity Plan	4x/10x/20x/ 40x/100x	6 V/20 W Halogen (transmitted)
<b>OBN 135</b>	Trinocular	HWF 10x/φ 20 mm	Infinity Plan		3 W LED (transmitted)
<b>OBN 158</b>	Trinocular	HWF 10x/φ 20 mm	Infinity Plan	4x/PH10x/PH20x/ PH40x/PH100x	6 V/20 W Halogen (transmitted)
<b>OBN 141</b>	Trinocular	WF 10x/φ 20 mm	Infinity Plan		LED + 3 W LED Epi Fluorescence (B/G)
<b>OBN 147</b>	Trinocular	WF 10x/φ 20 mm	Infinity Plan	4x/10x/20x/ 40x/100x	Halogen + 100 W Epi Fluorescence (B/G)
<b>OBN 148</b>	Trinocular	WF 10x/φ 20 mm	Infinity Plan		Halogen + 100 W Epi Fluorescence (B/G/UV/V)



## 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
- Strong and infinitely adjustable 30 W 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 stimulation of your fluorescence samples
- **1** 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 in 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 protective dust cover as well as multi-lingual user instructions are included in the scope of delivery

### 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. immuno fluorescence, FISH, DAPI staining, etc.)

### Technical data

- Infinity optical system
- **2** Quintuple nosepiece
- Siedentopf-head, 45° tilt
- Dioptre compensation on both sides

#### OCM 161

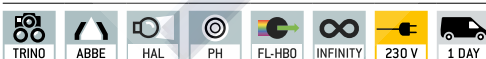
- Overall dimensions W×D×H 304×599×530 mm
- Net weight approx. 13,5 kg

#### OCM 165

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

Please refer to the website for further details as well as information on the full range of model features

STANDARD



Model	Standard configuration				
	Tube	Eyepiece	Objective quality	Objectives	Illumination
<b>KERN</b>					
<b>OCM 161</b>	Trinocular	HWF 10×/∅ 22 mm	Infinity Plan	LWD10×/LWD20×/ LWD40×/ LWD20×PH	6 V/30 W Halogen (transmitted)
<b>OCM 165</b>	Trinocular	HWF 10×/∅ 22 mm	Infinity Plan		6 V/30 W Halogen + 100 W Epi Fluorescence (B/G)
<b>OCM 166</b>	Trinocular	HWF 10×/∅ 22 mm	Infinity Plan		30 W Halogen + 100 W Epi Fluorescence (UV/V/B/G)
<b>OCM 167</b>	Trinocular	HWF 10×/∅ 22 mm	Infinity Plan		5W-LED + 5W Epi Fluorescence (B/G)
<b>OCM 168</b>	Trinocular	HWF 10×/∅ 22 mm	Infinity Plan		5W-LED + 5W Epi Fluorescence (UV/V/B/G)