

Compound microscopes KERN OBE-10 · 11



**Note**  
Please request special conditions for a classroom set



## 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 W×D×H 320×180×365 mm
- Net weight approx. 5,5 kg

#### STANDARD



#### OPTION



OBE 103,  
OBE 113

Model	Standard configuration				
	Tube	Eyepiece	Objective quality	Objectives	Illumination
<b>OBE 101</b>	Monocular	HWF 10×/φ 18 mm	Achromatic	4×/10×/40×	3 W LED (transmitted)
<b>OBE 102</b>	Binocular	HWF 10×/φ 18 mm	Achromatic		3 W LED (transmitted)
<b>OBE 103</b>	Binocular	HWF 10×/φ 18 mm	Achromatic		3 W LED (transmitted) (battery incl., rechargeable)
<b>OBE 104</b>	Trinocular	HWF 10×/φ 18 mm	Achromatic		3 W LED (transmitted)
<b>OBE 111</b>	Monocular	HWF 10×/φ 18 mm	Achromatic	4×/10×/40×/100×	3 W LED (transmitted)
<b>OBE 112</b>	Binocular	HWF 10×/φ 18 mm	Achromatic		3 W LED (transmitted)
<b>OBE 113</b>	Binocular	HWF 10×/φ 18 mm	Achromatic		3 W LED (transmitted) (battery incl., rechargeable)
<b>OBE 114</b>	Trinocular	HWF 10×/φ 18 mm	Achromatic		3 W LED (transmitted)

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

✓ = Included with delivery

○ = Option

## Compound microscopes KERN OBE-10 · 11

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

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## Pictograms

<b>360° rotatable microscope head</b>	<b>Fluorescence illumination for compound microscopes</b> With 3 W LED illumination and filter	<b>WLAN data interface</b> For transmitting of the picture to a mobile display device
<b>Monocular Microscope</b> For the inspection with one eye	<b>Phase contrast unit</b> For a higher contrast	<b>HDMI digital camera</b> For direct transmitting of the picture to a display device
<b>Binocular Microscope</b> For the inspection with both eyes	<b>Darkfield condenser/unit</b> For a higher contrast due to indirect illumination	<b>PC software</b> To transfer the measurements from the device to a PC.
<b>Trinocular Microscope</b> For the inspection with both eyes and the additional option for the connection of a camera	<b>Polarising unit</b> To polarise the light	<b>Automatic temperature compensation</b> For measurements between 10 °C and 30 °C
<b>Abbe Condenser</b> With high numerical aperture for the concentration and the focusing of light	<b>Infinity system</b> Infinity corrected optical system	<b>Protection against dust and water splashes IPxx</b> The type of protection is shown by the pictogram.
<b>Halogen illumination</b> For pictures bright and rich in contrast	<b>Zoom magnification</b> For stereomicroscopes	<b>Battery operation</b> Ready for battery operation. The battery type is specified for each device.
<b>LED illumination</b> Cold, energy saving and especially long-life illumination	<b>Parallel optical system</b> For stereomicroscopes, enables fatigue-proof working	<b>Battery operation rechargeable</b> Prepared for a rechargeable battery operation
<b>Incident illumination</b> For non-transparent objects	<b>Integrated scale</b> In the eyepiece	<b>Mains adapter</b> 230V/50Hz in standard version for EU. On request GB, AUS or USA version.
<b>Transmitting illumination</b> For transparent objects	<b>SD card</b> For data storage	<b>Power supply</b> Integrated in microscope. 230V/50Hz standard EU. More standards e.g. GB, AUS or USA on request.
<b>Fluorescence illumination for stereomicroscopes</b>	<b>USB 2.0 digital camera</b> For direct transmitting of the picture to a PC	<b>Package shipment</b> The time required to manufacture the product internally is shown in days in the pictogram.
<b>Fluorescence illumination for compound microscopes</b> With 100 W mercury lamp and filter	<b>USB 3.0 digital camera</b> For direct transmitting of the picture to a PC	

## Abbreviations

<b>C-Mount</b> Adapter for the connection of a camera to a trinocular microscope	<b>LWD</b> Long Working Distance	<b>SWF</b> Super Wide Field (Field number at least $\varnothing$ 23 mm for 10 $\times$ eyepiece)
<b>FPS</b> Frames per second	<b>N.A.</b> Numerical Aperture	<b>W.D.</b> Working Distance
<b>H(S)WF</b> High (Super) Wide Field (Eyepiece with high eye point for wearers of glasses)	<b>SLR camera</b> Single-Lens Reflex camera	<b>WF</b> Wide Field (Field number up to $\varnothing$ 22 mm for 10 $\times$ eyepiece)

Your KERN specialist dealer: