



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

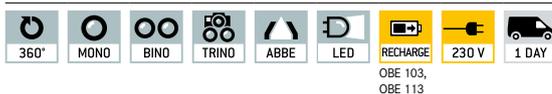
Applications/Samples

- 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					
	Tube	Eyepiece	Objective quality	Objectives	Illumination	
KERN						
OBE 101	Monocular	HWF 10x/∅ 18 mm	Achromatic	4x/10x/40x	3 W LED (transmitted)	↓
OBE 102	Binocular	HWF 10x/∅ 18 mm	Achromatic		3 W LED (transmitted)	↓
OBE 103	Binocular	HWF 10x/∅ 18 mm	Achromatic		3 W LED (transmitted) (battery incl., rechargeable)	↓
OBE 104	Trinocular	HWF 10x/∅ 18 mm	Achromatic	4x/10x/40x/100x	3 W LED (transmitted)	↓
OBE 111	Monocular	HWF 10x/∅ 18 mm	Achromatic		3 W LED (transmitted)	
OBE 112	Binocular	HWF 10x/∅ 18 mm	Achromatic		3 W LED (transmitted)	↓
OBE 113	Binocular	HWF 10x/∅ 18 mm	Achromatic		3 W LED (transmitted) (battery incl., rechargeable)	↓
OBE 114	Trinocular	HWF 10x/∅ 18 mm	Achromatic		3 W LED (transmitted)	↓

↓ Price reduction

Model outfit		Model KERN				Order number	
		OBE 101	OBE 102	OBE 103	OBE 104		
Eyepieces (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	
Achromatic objectives	4×/0,10 W.D. 18,6 mm	✓	✓	✓	✓	OBB-A1111	
	10×/0,25 W.D. 6,5 mm	✓	✓	✓	✓	OBB-A1108	
	40×/0,65 (spring) W.D. 0,47 mm	✓	✓	✓	✓	OBB-A1112	
	100×/1,25 (oil) (spring) W.D. 0,07 mm	○	○	○	○	OBB-A1109	
	20×/0,40 (spring) W.D. 1,75 mm	○	○	○	○	OBB-A1110	
	60×/0,85 (spring) W.D. 0,1 mm	○	○	○	○	OBB-A1113	
	E-Plan 100×/0,80 (dry) (spring) W.D. 0,15 mm	○	○	○	○	OBB-A1442	
	Plan 100×/1,0 (water) (spring) W.D. 0,18 mm	○	○	○	○	OBB-A1441	
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	
Darkfield unit	Usable for 4× – 40× objectives	○	○	○	○	OBB-A1148	
Polarising unit	Analyser/Polariser	○	○	○	○	OBB-A1276	
Illumination	3 W LED illumination system (transmitted) (non-rechargeable)	✓	✓		✓		
	3 W LED illumination system (transmitted) (rechargeable)			✓			
Colour filters for transmitted illumination	Blue	○	○	○	○	OBB-A1466	
	Green	○	○	○	○	OBB-A1467	
	Yellow	○	○	○	○	OBB-A1468	
	Gray	○	○	○	○	OBB-A1184	
C-Mount	0,5× (focus adjustable)				○	OBB-A1137	
	1×				○	OBB-A1139	

✓ = Included with delivery

○ = Option

Model outfit		Model KERN				Order number	
		OBE 111	OBE 112	OBE 113	OBE 114		
Eyepieces (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	
Achromatic objectives	4×/0,10 W.D. 18,6 mm	✓	✓	✓	✓	OBB-A1111	
	10×/0,25 W.D. 6,5 mm	✓	✓	✓	✓	OBB-A1108	
	40×/0,65 (spring) W.D. 0,47 mm	✓	✓	✓	✓	OBB-A1112	
	100×/1,25 (oil) (spring) W.D. 0,07 mm	✓	✓	✓	✓	OBB-A1109	
	20×/0,40 (spring) W.D. 1,75 mm	○	○	○	○	OBB-A1110	
	60×/0,85 (spring) W.D. 0,1 mm	○	○	○	○	OBB-A1113	
	E-Plan 100×/0,80 (dry) (spring) W.D. 0,15 mm	○	○	○	○	OBB-A1442	
	Plan 100×/1,0 (water) (spring) W.D. 0,18 mm	○	○	○	○	OBB-A1441	
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	
Darkfield unit	Usable for 4× – 40× objectives	○	○	○	○	OBB-A1148	
Polarising unit	Analyser/Polariser	○	○	○	○	OBB-A1276	
Illumination	3 W LED illumination system (transmitted) (non-rechargeable)	✓	✓		✓		
	3 W LED illumination system (transmitted) (rechargeable)			✓			
Colour filters for transmitted illumination	Blue	○	○	○	○	OBB-A1466	
	Green	○	○	○	○	OBB-A1467	
	Yellow	○	○	○	○	OBB-A1468	
	Gray	○	○	○	○	OBB-A1184	
C-Mount	0,5× (focus adjustable)				○	OBB-A1137	
	1×				○	OBB-A1139	

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 360°	360° rotatable microscope head	 FL-LED	Fluorescence illumination for compound microscopes With 3 W LED illumination and filter	 WLAN	WLAN data interface: For transmitting of the picture to a mobile display device
 MONO	Monocular Microscope For the inspection with one eye	 PH	Phase contrast unit For a higher contrast	 HDMI	HDMI digital camera For direct transmitting of the picture to a display device
 BINO	Binocular Microscope For the inspection with both eyes	 DF	Darkfield condenser/unit For a higher contrast due to indirect illumination	 SOFTWARE	PC software To transfer the measurements from the device to a PC.
 TRINO	Trinocular Microscope For the inspection with both eyes and the additional option for the connection of a camera	 POLAR	Polarising unit To polarise the light	 AUTO ATC	Automatic temperature compensation For measurements between 10 °C and 30 °C
 ABBE	Abbe Condenser With high numerical aperture for the concentration and the focusing of light	 INFINITY	Infinity system Infinity corrected optical system	 IP	Protection against dust and water splashes IPxx The type of protection is shown by the pictogram.
 HAL	Halogen illumination For pictures bright and rich in contrast	 ZOOM	Zoom magnification For stereomicroscopes	 BATT	Battery operation Ready for battery operation. The battery type is specified for each device.
 LED	LED illumination Cold, energy saving and especially long-life illumination	 PARALLEL	Parallel optical system For stereomicroscopes, enables fatigue-proof working	 RECHARGE	Battery operation rechargeable Prepared for a rechargeable battery operation
 IL	Incident illumination For non-transparent objects	 SCALE	Integrated scale In the eyepiece	 230 V	Mains adapter 230V/50Hz in standard version for EU. On request GB, AUS or USA version.
 TL	Transmitting illumination For transparent objects	 SD	SD card For data storage	 230 V	Power supply Integrated in balance. 230V/50Hz standard EU. More standards e.g. GB, AUS or USA on request.
 FL	Fluorescence illumination For stereomicroscopes	 USB 2.0	USB 2.0 digital camera For direct transmitting of the picture to a PC	 1 DAY	Package shipment The time required to manufacture the product internally is shown in days in the pictogram.
 FL-HBO	Fluorescence illumination for compound microscopes With 100 W mercury lamp and filter	 USB 3.0	USB 3.0 digital camera For direct transmitting of the picture to a PC		

Abbreviations

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

Your KERN specialist dealer: