

Compound microscope KERN OBS-1

Note

Please request special conditions for a classroom set



Objectives OBS



OBS 101



OBS 104



OBS 106

EDUCATIONAL LINE

The school microscope – For the first steps in microscopy and for use in biology lessons

Scope of application

- Primary school, secondary school, training, hobby use

Applications/Samples

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

Technical data

- Finite optical system (DIN)
- Triple (OBS 101, 102) or quadplex (OBS 103, 104, 105, 106) nosepiece
- Tube 45° (OBS 101, 102, 103, 105) or 30° (OBS 104, 106) inclined/360° rotatable
- Diopter adjustment: Both-sided (for binocular models)
- Overall dimensions W×D×H 130×300×310 mm
- Net weight approx. 3 kg

Features

- The KERN OBS range is a solid and simple school microscope range, which is easy to use due to its intuitive control elements
- The continuously dimmable 0.5W LED guarantees optimum illumination of the samples and also ensures long service life. Mobile use is also no problem through the use of rechargeable batteries
- The simple 0.65 condenser on the OBS 101 (condenser disc) and the OBS 102 (fixed condenser) ensures the very best concentration of light and illumination of the sample. The OBS 103, 104, 105 and 106 models have a 1.25 Abbe condenser which is height-adjustable and can therefore be focussed and has an aperture diaphragm, which ensures the very best concentration of light
- To focus the object, all models have a coarse and fine focusing knob on both sides. The mechanical stage enables you to work with the samples and move them rapidly (only for OBS 105, 106)
- A large selection of different eyepieces and objectives is also available
- Please find detailed information in the following model outfit list

STANDARD



not
OBS 101, 102

Model	Standard configuration					
	Tube	Eyepiece	Objective quality	Objectives	Illumination	Stage
OBS 101	Monocular	WF 10×/ø 18 mm	Achromatic	4×/10×/40×	0,5W LED (transmitted) (battery incl., rechargeable)	fix
OBS 102 <small>NEW</small>	Monocular	WF 10×/ø 18 mm	Achromatic		0,5W LED (transmitted) (battery incl., rechargeable)	fix
OBS 103 <small>NEW</small>	Monocular	WF 10×/ø 18 mm	Achromatic		0,5W LED (transmitted) (battery incl., rechargeable)	fix
OBS 104	Binocular	WF 10×/ø 18 mm	Achromatic		0,5W LED (transmitted) (battery incl., rechargeable)	fix
OBS 105 <small>NEW</small>	Monocular	WF 10×/ø 18 mm	Achromatic		0,5W LED (transmitted) (battery incl., rechargeable)	mechanical
OBS 106	Binocular	WF 10×/ø 18 mm	Achromatic		0,5W LED (transmitted) (battery incl., rechargeable)	mechanical

NEW New model

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Model outfit		Model KERN						Order number
		OBS 101	OBS 102	OBS 103	OBS 104	OBS 105	OBS 106	
Eyepieces (23,2 mm)	WF 10×/φ 18 mm	✓	✓	✓	✓✓	✓	✓✓	OBB-A1473
	WF 16×/φ 13 mm	○	○	○	○○	○	○○	OBB-A1474
	WF 20×/φ 11 mm	○	○	○	○○	○	○○	OBB-A1475
	WF 10×/φ 18 mm (with Pointer)	○	○	○	○	○	○	OBB-A1561
Achromatic objectives	4×/0,10 W.D. 18,0 mm	✓	✓	✓	✓	✓	✓	OBB-A1476
	10×/0,25 W.D. 7,0 mm	✓	✓	✓	✓	✓	✓	OBB-A1477
	40×/0,65 (spring-loaded) W.D. 0,53 mm	✓	✓	✓	✓	✓	✓	OBB-A1478
	60×/0,85 (spring-loaded) W.D. 0,1 mm	○	○	○	○	○	○	OBB-A1479
	100×/1,25 (oil) (spring-loaded) W.D. 0,07 mm	○	○	○	○	○	○	OBB-A1480
E-Plan objectives	4×/0,10 W.D. 14,5 mm	○	○	○	○	○	○	OBB-A1562
	10×/0,25 W.D. 5,65 mm	○	○	○	○	○	○	OBB-A1563
	40×/0,65 (spring-loaded) W.D. 0,85 mm	○	○	○	○	○	○	OBB-A1564
	100×/1,25 (oil) (spring-loaded) W.D. 0,07 mm	○	○	○	○	○	○	OBB-A1565
	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
Monocular tube	45° inclined/360° rotatable	✓	✓	✓		✓		OBB-A1471
Binocular tube	<ul style="list-style-type: none"> · 30° inclined/360° rotatable · Interpupillary distance 55-75 mm · Diopter adjustment: Both-sided 				✓		✓	OBB-A1472
Fixed stage	<ul style="list-style-type: none"> · Stage size W×D 110×120 mm · Coaxial coarse and fine focusing knobs, scale: 2,5 μm 	✓	✓	✓	✓			
Mechanical stage	<ul style="list-style-type: none"> · Stage size W×D 115×125 mm · Travel 75×18 mm · Coaxial coarse and fine focusing knobs, scale: 2,5 μm 					✓	✓	
Condenser	Simple condenser N.A. 0,65	✓	✓					
	Abbe N.A. 1,25 (aperture diaphragm)			✓	✓	✓	✓	
Illumination	0,5 W LED illumination system (transmitted) (rechargeable)	✓	✓	✓	✓	✓	✓	
Colour filters for transmitted illumination	Blue	✓	✓	✓	✓	✓	✓	OBB-A1466
	Green	○	○	○	○	○	○	OBB-A1467
	Yellow	○	○	○	○	○	○	OBB-A1468
	Grey	○	○	○	○	○	○	OBB-A1184

✓ = Included with delivery

○ = Option

Pictograms

360° rotatable microscope head	Fluorescence illumination for compound microscopes With 3 W LED illumination and filter	WLAN data interface For transmitting of the picture to a mobile display device
Monocular Microscope For the inspection with one eye	Phase contrast unit For a higher contrast	HDMI digital camera For direct transmitting of the picture to a display device
Binocular Microscope For the inspection with both eyes	Darkfield condenser/unit For a higher contrast due to indirect illumination	PC software To transfer the measurements from the device to a PC.
Trinocular Microscope For the inspection with both eyes and the additional option for the connection of a camera	Polarising unit To polarise the light	Automatic temperature compensation For measurements between 10 °C and 30 °C
Abbe Condenser With high numerical aperture for the concentration and the focusing of light	Infinity system Infinity corrected optical system	Protection against dust and water splashes IPxx The type of protection is shown by the pictogram.
Halogen illumination For pictures bright and rich in contrast	Zoom magnification For stereomicroscopes	Battery operation Ready for battery operation. The battery type is specified for each device.
LED illumination Cold, energy saving and especially long-life illumination	Parallel optical system For stereomicroscopes, enables fatigue-proof working	Battery operation rechargeable Prepared for a rechargeable battery operation
Incident illumination For non-transparent objects	Integrated scale In the eyepiece	Mains adapter 230V/50Hz in standard version for EU. On request GB, AUS or USA version.
Transmitting illumination For transparent objects	SD card For data storage	Power supply Integrated in microscope. 230V/50Hz standard EU. More standards e.g. GB, AUS or USA on request.
Fluorescence illumination for stereomicroscopes	USB 2.0 digital camera For direct transmitting of the picture to a PC	Package shipment The time required to manufacture the product internally is shown in days in the pictogram.
Fluorescence illumination for compound microscopes With 100 W mercury lamp and filter	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 camera	Single-Lens Reflex camera	WF	Wide Field (Field number up to \varnothing 22 mm for 10 \times eyepiece)

Your KERN specialist dealer:

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