





With white stage plate



With black stage plate

#### **EDUCATIONAL LINE**

# The small robust model for school, training establishment or workshops

#### **Features**

- The KERN OSE-4 is an extremely robust, stable stereo microscope which is easy to use, it is ideal for all conventional applications in schools, workshops and training companies
- Depending on the model, optional LED reflected illumination as well as transmitted and reflected illumination ensure the very best illumination of your sample
- Despite its low price it has very good optical characteristics, which enable you to have sharp images over a large field of view
- A turnable objective with predefined magnifications is available to make your working procedures quicker and more efficient

- The eyepieces are fixed in the eyepiece tube, to stop them getting damaged or lost
- A special feature of this adaptable and yet robust microscope series is the stable mechanism of the microscope stand which can be adjusted precisely. It will also impress you with its functionality and ergonomic design
- A large selection of eyepieces as well as various additional external illumination units are available as accessories
- A protective dust cover, eye cups, as well as multi-lingual user instructions are included in the scope of delivery
- Please find detailed information in the following model outfit list

#### Scope of application

 Training, in vitro fertilisation, detection of parasites, zoology and botany, tissue preparation, section, quality control

#### Applications/Samples

 Samples with focus on three-dimensional impression (depth, thickness), e.g. insects, seeds, circuit boards, components

#### **Technical data**

- Optical system: Greenough optics
- Tube 45° inclined
- Interpupillary distance 55 75 mm
- Diopter adjustment: One-sided
- Overall dimensions W×D×H 230×130×330 mm
- Net weight approx. 2 kg

#### STANDADI



Model	Standard configuration						
	Tube	Eyepiece	Field of view	Objective	Stand	Illumination	
KERN			mm				
OSE 416	Binocular	WF 10×/Ø 20 mm	Ø 20	1×/3×	Pillar style	0,21 W LED (incident); 0,21 W LED (transmitted)	
OSE 417	Binocular	WF 10×/Ø 20 mm	Ø 20	2×/4×	Pillar style	0,21 W LED (incident); 0,21 W LED (transmitted)	



Eyepiece	Specifications - Objectives							
	Magnification	1×	2×	3×	4×			
WF 5×	Total magnification	5×	10×	15×	20×			
WF 5^	Field of view mm	Ø 20	Ø 10	Ø 6,7	Ø 5			
WE 10:	Total magnification	10×	20×	30×	40×			
WF 10×	Field of view mm	Ø 20	Ø 10	Ø 6,7	Ø 5			
WF 15×	Total magnification	15×	30×	45×	60×			
WF 15*	Field of view mm	ø 15	ø 7,5	Ø 5	ø 3,7			
WE 20.	Total magnification	20×	40×	60×	80×			
WF 20×	Field of view mm	ø 10	Ø 6,5	ø 4,3	ø 3,2			
Working distance		57 mm	57 mm	57 mm	57 mm			

Model outfit		Mode	I KERN	Order number
		OSE 416	OSE 417	_
Eyepieces (30,5 mm)	WF 5×/ø 16,2 mm	00	00	OZB-A4101
	WF 10×/ø 20 mm	44	44	OZB-A4102
	WF 15×/ø 15 mm	00	00	OZB-A4103
	WF 20×/ø 10 mm	00	00	OZB-A4104
Stand	Pillar style, without illumination			
	Pillar style, with 0,21 W LED illumination (incident)			
	Pillar style, with 0,21 W LED illumination (transmission + incident)	✓	✓	
Stage plate	Black-white/Ø 59,5 mm			OZB-A4816
	Frosted glass/ø 95 mm	✓	<b>✓</b>	OZB-A4805
	Black-white/Ø 95 mm	✓	✓	OZB-A4806
External illumination	Please find the information about external illumination units in t	the catalogue on p	age 83 and on our	website www.kern-sohn.com

✓ = Included with delivery

O = Option

### **KERN Pictograms:**





360° rotatable microscope head



Fluorescence illumination for compound microscopes With 3W 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 compesation

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



Halogen illumination

For pictures bright and rich in contrast



Zoom magnification

For stereomicroscopes



pictogram. **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 rechargable** 

Prepared for a rechargable battery operation



Incident illumination

For non-transparent objects



Integrated scale In the eyepiece

230 V

Mains adapter

230V/50Hz in standard version for EU. On request GB, AUS or USA version.



Transmitting illumination

For transparent objects



SD card



Power supply

Integrated in balance. 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



WF

Package shipment

The time required to manufacture the product internally is shown in days in the pictogram.

FL-HB0

Fluorescence illumination for compound microscopes

With 100W 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

FPS Frames per second

H(S)WF High (Super) Wide Field

(Eyepiece with high eye point for wearers of glasses)

**LWD** Long Working Distance

SLR Kamera Single-Lens Reflex camera

N.A. **Numerical Aperture**  **SWF** Super Wide Field

(Field number at least Ø 23 mm

for 10× eyepiece)

Working Distance W.D.

> Wide Field (Field number up to Ø 22 mm for 10× eyepiece)

## Your KERN specialist dealer: