#### Stereomicroscope KERN OSF-4G





Stage plate black



Stage plate white

#### **EDUCATIONAL LINE**

# The practical and robust product for schools, training centres, the workshop and laboratory

#### **Features**

- With its integrated handle as well as its stable arm curved stand, the KERN OSF-4G has been specially developed for schools and workshops
- The LED reflected and transmitted illumination included as standard guarantees the very best, continuously dimmable illumination of your sample
- · As well as very good optical characteristics, its ergonomic working surface means that it offers the highest level of convenience in
- A turnable objective with three predefined magnifications is available to make your working procedures quicker and more effective

- The eyepieces are fixed in the eyepiece tube, to stop them getting damaged or lost
- The ergonomic shape and the stable mechanism which can be adjusted extremely accurately offer a high level of functionality and enable you to work quickly and efficiently with very little effort
- 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
- · Brightness adjustable (separate)
- Tube 45° inclined
- Interpupillary distance 55 75 mm
- · Diopter adjustment: One-sided
- Overall dimensions W×D×H 230×180×275 mm
- Net weight approx. 2,5 kg

















Model	Standard configuration						
	Tube	Eyepiece	Field of view	Objective	Stand	Illumination	
KERN			mm				
OSF 438	Binocular	WF 10×/Ø 20 mm	Ø 20	1×/2×/3×	Arm curved	1 W LED (incident); 0,35 W LED (transmitted)	
OSF 439	Binocular	WF 10×/Ø 20 mm	Ø 20	1×/2×/4×	Arm curved	1 W LED (incident); 0,35 W LED (transmitted)	



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Eyepiece	Specifications - Objectives							
	Magnification	1×	2×	3×	4×			
ME 5	Total magnification	5×	10×	15×	20×			
WF 5×	Field of view mm	ø 20	Ø 10	Ø 6,7	Ø 5			
WE 40	Total magnification	10×	20×	30×	40×			
WF 10×	Field of view mm	ø 20	Ø 10	Ø 6,7	Ø 5			
ME 45	Total magnification	15×	30×	45×	60×			
WF 15×	Field of view mm	Ø 15	Ø 7,5	ø 5	ø 3,7			
WE 00	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		
		OSF 438	OSF 439			
	WF 5×/ø 16,2 mm	00	00	OZB-A4101		
	WF 10×/ø 20 mm	<b>**</b>	44	OZB-A4102		
Eyepieces (30,5 mm)	WF 15×/ø 15 mm	00	00	OZB-A4103		
(33,3)	WF 20×/ø 10 mm	00	00	OZB-A4104		
	WF 10×/Ø 20 mm (reticule 0,1 mm)	0	0	OZB-A4151		
Stand	Arm curved, incl. handle, with LED illumination (0,35 W transmitted + 1 W incident)	✓	✓			
Stage plate	Frosted glass/Ø 59,5 mm	✓	✓	OZB-A4815		
	Black-white/Ø 59,5 mm	✓	✓	OZB-A4816		
External illumination	Please find the information about external illumination units in the catalogue on page 83 and on the internet					

✓ = Included with delivery

O = Option



#### **Pictograms**



360° rotatable





Monocular Microscope

For the inspection with one eye



Binocular Microscope

For the inspection with both eyes



Trinocular Microscope

For the inspection with both eyes and the additional option for the connection of a camera



Abbe Condenser

With high numerical aperture for the concentration and the focusing of light



Halogen illumination

For pictures bright and rich in contrast



LED illumination

Cold, energy-saving and especially long-life illumination



Incident illumination

For non-transparent objects



Transmitting illumination

For transparent objects



Fluorescence illumination

For stereomicroscopes



**FPS** 

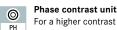
Fluorescence illumination

for compound microscopes With 100W mercury lamp and filter



Fluorescence illumination for compound microscopes

With 3 W LED illumination and filter



Phase contrast unit



Darkfield condenser/unit

For a higher contrast due to indirect illumination



Polarising unit

To polarise the light



Infinity system

Infinity corrected optical system



Zoom magnification For stereomicroscopes

**Auto-focus** 

For automatic control of the focus level



Parallel optical system

For stereomicroscopes, enables fatigue-proof working



Integrated scale

In the eyepiece



SD card

For data storage



USB 2.0 digital camera



For direct transmitting of the picture to a PC



USB 3.0 digital camera

For direct transmitting of the picture to a PC



WLAN data interface

For transmitting of the picture to a mobile display device



HDMI digital camera

For direct transmitting of the picture to a display



PC software

To transfer the measurements from the device to a PC



Automatic temperature compesation

For measurements between 10 °C and 30 °C



Protection against dust and water splashes

IPxx: The type of protection is shown in the pictogram cf. DIN EN 60529:2000-09, IEC 60529:1989+A1:1999+A2:2013



**Battery operation** 

Ready for battery operation. The battery type is specified for each device.



**Battery operation rechargeable** 

Prepared for a rechargeable battery operation



Plug-in power supply

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



Integrated power supply unit

Integrated in microscope. 230V/50Hz standard EU. More standards e.g. GB, AUS or USA on request.



Package shipment

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

## **Abbreviations**

Adapter for the connection of a C-Mount

Frames per second

camera to a trinocular microscope

LWD Long Working Distance SWF Super Wide Field (Field number at least Ø 23 mm for 10× eyepiece)

N.A. Numerical Aperture

Working Distance W.D.

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

Ø 22 mm for 10× eyepiece)

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