

# STEREOMICROSCOPES



PROFESSIONAL  
MEASURING

**2018**

# KERN Pictograms



**360° rotatable microscope head**

360°



**Monocular Microscope**  
For the inspection with one eye

MONO



**Binocular Microscope**  
For the inspection with both eyes

BINO



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

TRINO



**Abbe Condenser**  
With high numerical aperture for the concentration and the focusing of light

ABBE



**Halogen illumination**  
For pictures bright and rich in contrast

HAL



**LED illumination**  
Cold, energy saving and especially long-life illumination

LED



**Incident illumination**  
For non-transparent objects

IL



**Transmitting illumination**  
For transparent objects

TL



**Fluorescence illumination**  
For stereomicroscopes

FL



**Fluorescence illumination for compound microscopes**  
With 100 W mercury lamp and filter

FL-HBO



**Fluorescence illumination for compound microscopes**  
With 3 W LED illumination and filter

FL-LED



**Phase contrast unit**  
For a higher contrast

PH



**Darkfield condenser/unit**  
For a higher contrast due to indirect illumination

DF



**Polarising unit**  
To polarise the light

POLAR



**Infinity system**  
Infinity corrected optical system

INFINITY



**Zoom magnification**  
For stereomicroscopes

ZOOM



**Parallel optical system**  
For stereomicroscopes, enables fatigue-proof working

PARALLEL



**Integrated scale**  
In the eyepiece

SCALE



**SD card**  
For data storage

SD



**USB 2.0 digital camera**  
For direct transmitting of the picture to a PC

USB 2.0



**USB 3.0 digital camera**  
For direct transmitting of the picture to a PC

USB 3.0



**WLAN data interface:**  
For transmitting of the picture to a mobile display device

WLAN



**HDMI digital camera**  
For direct transmitting of the picture to a display device

HDMI



**PC software**  
To transfer the measurements from the device to a PC.

SOFTWARE



**Automatic temperature compensation**  
For measurements between 10 °C and 30 °C

AUTO ATC



**Protection against dust and water splashes IPxx**  
The type of protection is shown by the pictogram.

IP



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

BATT



**Battery operation rechargeable**  
Prepared for a rechargeable battery operation

RECHARGE



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

230 V



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

230 V



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

1 DAY

## Abbreviations

<b>C-Mount</b>	Adapter for the connection of a camera to a trinocular microscope
<b>FPS</b>	Frames per second
<b>H(S)WF</b>	High (Super) Wide Field (Eyepiece with high eye point for wearers of glasses)
<b>LWD</b>	Long Working Distance
<b>N.A.</b>	Numerical Aperture

<b>SLR camera</b>	Single-Lens Reflex camera
<b>SWF</b>	Super Wide Field (Field number at least $\varnothing$ 23 mm for 10 $\times$ eyepiece)
<b>W.D.</b>	Working Distance
<b>WF</b>	Wide Field (Field number up to $\varnothing$ 22 mm for 10 $\times$ eyepiece)

# Why you should choose a KERN microscope now!

For over 170 years, KERN & SOHN has been synonymous with high precision weighing and measuring technology. This claim is the driving force for the development of our microscope and refractometer ranges.

By working closely with you and our production partners, within 3 years we have developed a complete product range of high-quality microscopes and refractometers.

Thanks to consistent customer focus paired with smart ideas and the latest available technology we are proud to be suppliers of high-quality, durable top microscopes and refractometers, which help you to be as efficient as possible in your daily work.

When developing our microscopes we have concentrated on the very best optical quality and have used only high-quality glass and the latest technologies to achieve this. The high-quality Philips halogen and modern LED illumination produce razor-sharp images with high contrast and which will impress you with their brilliant true-colour display – you must have noticed this yourself.

### Your advantages:

- all mechanical parts have been designed for a long service life
- special attention has been given to the ergonomics of our microscopes, as this allows the user to work for several hours in a comfortable position which does not cause fatigue
- our microscopes are fully-equipped and can be used immediately
- Highlight for 2018: die KERN camera software – you will be amazed at how user-friendly and intuitive it is
- and much more...

Use our practical “Check list for microscopes and refractometers”, which may help you to quickly determine specifications for the future instrument. Together with our KERN product specialist you can choose the right product for you.

If there is no suitable product in the standard range, for example, then we will of course configure an individual microscope for you.

Our aim is to develop a market-driven product solution, so with our microscope and refractometer range, the saying holds true: good quality at a competitive price! This is what we stand for and work towards, every day!

With our current 2018 product range you can benefit from improved quality and a clear reduction in price, which we have been able to achieve through more efficient production methods and increased global sales of our microscopes and refractometers and of course we pass this straight on to you

Do you have any questions about our range of microscopes and refractometers?

Your KERN customer consultants are available at any time to help you further.

I hope that you enjoy working efficiently with our KERN Optics products.



Albert Sauter, Managing Director

## Your advantages

### fast

•

### reliable

- Up to 3 years warranty
- Certified QM system  
DIN EN ISO 9001

### versatile

- One-stop shopping: from microscope through to refractometer – everything from one supplier
- Quick as a flash, find the product



**Order telephone**  
+46 8 92 00 09



**E-mail order**  
sales@pretech.nu



**PRETECH**  
INSTRUMENTS



# 4 Stereomicroscopes

Stereo, Stereo-Zoom, Coaxial and Gem microscopes







OSE 416/417



With white stage plate



With black stage plate

04

**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

STANDARD



Model	Standard configuration						Price excl. of VAT ex works €
	Tube	Eyepiece	Field of view mm	Objective	Stand	Illumination	
<b>OSE 416</b>	Binocular	WF 10×/ø 20 mm	ø 20	1×/3×	Pillar style	0,21 W LED (incident); 0,21 W LED (transmitted)	<b>255,-</b>
<b>OSE 417</b>	Binocular	WF 10×/ø 20 mm	ø 20	2×/4×	Pillar style	0,21 W LED (incident); 0,21 W LED (transmitted)	<b>255,-</b>

# Stereomicroscope KERN OSE-4

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

Model outfit		Model KERN		Order number	Price/piece excl. of VAT ex works €
		OSE 416	OSE 417		
Eyepieces (30,5 mm)	WF 5×/∅ 16,2 mm	○ ○	○ ○	OZB-A4101	35,-
	WF 10×/∅ 20 mm	✓ ✓	✓ ✓	OZB-A4102	30,-
	WF 15×/∅ 15 mm	○ ○	○ ○	OZB-A4103	30,-
	WF 20×/∅ 10 mm	○ ○	○ ○	OZB-A4104	35,-
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/∅ 59,5 mm			OZB-A4816	19,-
	Frosted glass/∅ 95 mm	✓	✓	OZB-A4805	19,-
	Black-white/∅ 95 mm	✓	✓	OZB-A4806	19,-
External illumination	Please find the information about external illumination units in the catalogue on page 83 and on our website <a href="http://www.kern-sohn.com">www.kern-sohn.com</a>				

✓ = Included with delivery

○ = Option

04



Stage plate black



Stage plate white

4

**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 this class
- 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

STANDARD



Model	Standard configuration						Price excl. of VAT ex works €
	Tube	Eyepiece	Field of view mm	Objective	Stand	Illumination	
<b>KERN</b>							
<b>OSF 438</b>	Binocular	WF 10×/ø 20 mm	ø 20	1×/2×/3×	Arm curved	1 W LED (incident); 0,35 W LED (transmitted)	<b>325,-</b>
<b>OSF 439</b>	Binocular	WF 10×/ø 20 mm	ø 20	1×/2×/4×	Arm curved	1 W LED (incident); 0,35 W LED (transmitted)	<b>325,-</b>

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

Model outfit		Model KERN		Order number	Price/piece excl. of VAT ex works €
		OSF 438	OSF 439		
Eyepieces (30,5 mm)	WF 5×/∅ 16,2 mm	○ ○	○ ○	OZB-A4101	35,-
	WF 10×/∅ 20 mm	✓ ✓	✓ ✓	OZB-A4102	30,-
	WF 15×/∅ 15 mm	○ ○	○ ○	OZB-A4103	30,-
	WF 20×/∅ 10 mm	○ ○	○ ○	OZB-A4104	35,-
Stand	Arm curved, incl. handle, with LED illumination (0,35 W transmitted + 1 W incident)	✓	✓		
Stage plate	Frosted glass/∅ 59,5 mm	✓	✓	OZB-A4815	19,-
	Black-white/∅ 59,5 mm	✓	✓	OZB-A4816	19,-
External illumination	Please find the information about external illumination units in the catalogue on page 83 and on our website <a href="http://www.kern-sohn.com">www.kern-sohn.com</a>				

✓ = Included with delivery

○ = Option





04

**LAB LINE**

The affordable and flexible stereo zoom microscope for laboratories, inspection authorities and quality controls

**Features**

- The products in the KERN OZL-44 series are stereo zoom microscopes, which will impress you with their easy handling, flexibility as well as their stability and economical price
- The LED reflected and transmitted illumination included as standard guarantees the very best illumination of your sample
- As well as excellent optical characteristics and their large working surface, these models offer the highest level of comfort in this class – ideal for training companies, workshops as well as assembly and repair workstations, e.g. in the electronics industry
- The zoom objective gives you continuous magnification of 7,5× – 36×
- The OZL-44 series is available as a binocular version. The eyepieces are fixed in the eyepiece tube, to stop them getting damaged or lost
- The pillar stand offers you the highest level of flexibility and the freedom to remove the microscope head and to integrate it into other modular systems, for example into a universal stand
- A large selection of eyepieces, external illumination units as well as auxiliary objectives 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**

- In vitro fertilisation, detection of parasites, zoology and botany, tissue preparation, section, quality control

**Applications/Samples**

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

**Technical data**

- Optical system: Greenough optics
- Brightness adjustable (separate)
- Tube 45° inclined
- Magnification ratio: 4,8:1
- Interpupillary distance 55 – 75 mm
- Diopter adjustment: Both-sided
- Overall dimensions W×D×H 330×235×380 mm
- Net weight approx. 5 kg

STANDARD



Model	Standard configuration						Price excl. of VAT ex works €
	Tube	Eyepiece	Field of view mm	Objective Zoom	Stand	Illumination	
<b>KERN</b>							
<b>OZL 445</b>	Binocular	WF 10×/ø 20 mm	ø 26,7 – 5,6	0,75× – 3,6×	Pillar style	1 W LED (incident); 0,35 W LED (transmitted)	<b>410,-</b>

OZL 445		Specifications - Objectives				
Eyepiece	Magnification	Standard 1,0×	Auxiliary objectives			
			0,5×	0,75×	1,5×	2,0×
WF 5×	Total magnification	3,75× - 18×	1,875× - 9×	2,81× - 13,5×	5,625× - 27×	7,5× - 36×
	Field of view mm	∅ 26 - 6	∅ 60 - 13	∅ 32 - 7	∅ 16 - 4	∅ 12,5 - 3
WF 10×	Total magnification	7,5× - 36×	3,75× - 18×	5,625× - 27×	11,25× - 54×	15× - 72×
	Field of view mm	∅ 26,7 - 5,6	∅ 53,3 - 11,1	∅ 35,5 - 7,4	∅ 17,8 - 3,7	∅ 13,3 - 2,8
WF 15×	Total magnification	11,25× - 54×	5,625× - 27×	8,44× - 40,5×	16,875× - 81×	22,5× - 108×
	Field of view mm	∅ 19 - 4,5	∅ 43 - 9,5	∅ 24 - 5,5	∅ 12 - 3	∅ 9,5 - 2
WF 20×	Total magnification	15× - 72×	7,5× - 36×	56,25× - 54×	22,5× - 108×	30× - 144×
	Field of view mm	∅ 12,5 - 3	∅ 28 - 6	∅ 16 - 3,5	∅ 8 - 2	∅ 6 - 1,5
<b>Working distance</b>		86 mm	178 mm	96 mm	42,5 mm	25,5 mm
<b>Maximum sample height</b>		100 mm	10 mm	60 mm	120 mm	135 mm

Model outfit		Model KERN	Order number	Price/piece excl. of VAT ex works €
		OZL 445		
Eyepieces (30,5 mm)	WF 5×/∅ 16,2 mm	○ ○	OZB-A4101	35,-
	WF 10×/∅ 22 mm		OZB-A4105	35,-
	WF 10×/∅ 20 mm	✓ ✓	OZB-A4102	35,-
	WF 15×/∅ 15 mm	○ ○	OZB-A4103	30,-
	WF 20×/∅ 10 mm	○ ○	OZB-A4104	30,-
Auxiliary objectives	0,5×	○	OZB-A4201	75,-
	0,75×	○	OZB-A4202	75,-
	1,5×	○	OZB-A4204	75,-
	2,0×	○	OZB-A4205	80,-
	Soldering protection lens	○	OZB-A4251	19,-
Stand	Pillar style, with LED illumination (0,35 W transmitted + 1 W incident)	✓		
Stage plate	Frosted glass/∅ 95 mm	✓	OZB-A4805	19,-
	Black-white/∅ 95 mm	✓	OZB-A4806	19,-
External illumination	Please find the information about external illumination units in the catalogue on page 83 and on our website <a href="http://www.kern-sohn.com">www.kern-sohn.com</a>			

✓ = Included with delivery

○ = Option



OZL 464  
With standard stand



OZL 465  
With ring illumination



OZL 467  
With handle

**LAB LINE**

The flexible, affordable all-rounder with zoom function for schools, training companies, inspection authorities and laboratories

**Features**

- The products in the KERN OZL-46 series are stereo zoom microscopes, which will impress you with their quality, easy handling, flexibility as well as their stability and economical price
- The LED reflected and transmitted illumination included as standard guarantees the very best illumination of your sample
- The highlight of the OZL 465/OZL 466 is the strong, continuously dimmable, integrated LED ring illumination in the objective housing, which ensures uniform, shadow-free illumination. An LED transmitted light variant is also included
- As well as excellent optical characteristics and their large working surface, these models offer the highest level of comfort in this class – ideal for training companies, workshops as well as assembly and repair workstations, e.g. in the electronics industry
- The zoom objective offers you continuous magnification from 7×–45×
- The KERN OZL-46 series is available as a binocular or trinocular version
- The pillar stand offers you the highest level of flexibility and the freedom to remove the microscope head and to integrate it into other modular systems, for example into a universal stand
- With its integrated handle as well as its stable arm curved stand, the KERN OZL 467/OZL 468 has been specially developed for schools and workshops
- A large selection of eyepieces, external illumination units as well as auxiliary objectives are available as accessories
- A protective dust cover, eye cups, as well as multi-lingual user instructions are included in the scope of 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**

- In vitro fertilisation, detection of parasites, zoology and botany, tissue preparation, section, quality control

**Applications/Samples**

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

**Technical data**

- Optical system: Greenough optics
- Brightness adjustable (separate)
- Tube 45° inclined
- Magnification ratio: 6,4:1
- Light distribution 50:50
- Interpupillary distance 55 – 75 mm
- Diopter adjustment: Both-sided
- Overall dimensions W×D×H 300×240×420 mm
- Net weight approx. 4 kg

STANDARD



Model	Standard configuration						Price excl. of VAT ex works €
	Tube	Eyepiece	Field of view mm	Objective Zoom	Stand	Illumination	
<b>OZL 463</b>	Binocular	HWF 10×/ø 20 mm	ø 28,6 – 4,4	0,7× – 4,5×	Pillar style	3 W LED (incident); 3 W LED (transmitted)	<b>500,-</b>
<b>OZL 464</b>	Trinocular	HWF 10×/ø 20 mm	ø 28,6 – 4,4	0,7× – 4,5×	Pillar style	3 W LED (incident); 3 W LED (transmitted)	<b>570,-</b>
<b>OZL 465</b>	Binocular	HWF 10×/ø 20 mm	ø 28,6 – 4,4	0,7× – 4,5×	Pillar style	3 W LED (incident); 3 W LED (transmitted)	<b>550,-</b>
<b>OZL 466</b>	Trinocular	HWF 10×/ø 20 mm	ø 28,6 – 4,4	0,7× – 4,5×	Pillar style	3 W LED (incident); 3 W LED (transmitted)	<b>620,-</b>
<b>OZL 467</b>	Binocular	HWF 10×/ø 20 mm	ø 28,6 – 4,4	0,7× – 4,5×	Arm curved	3 W LED (incident); 3 W LED (transmitted)	<b>510,-</b>
<b>OZL 468</b>	Trinocular	HWF 10×/ø 20 mm	ø 28,6 – 4,4	0,7× – 4,5×	Arm curved	3 W LED (incident); 3 W LED (transmitted)	<b>580,-</b>

New model

Price reduction

Eyepiece	Specifications - Objectives					
	Magnification	Standard 1,0×	Auxiliary objectives			
			0,5×	0,75×	1,5×	2,0×
HSWF 10×	Total magnification	7× - 45×	3,5× - 22,5×	5,3× - 33,8×	10,5× - 67,5×	14× - 90×
	Field of view mm	∅ 28,6 - 4,4	∅ 57,1 - 8,9	∅ 38,1 - 5,9	∅ 19 - 3	∅ 14,3 - 2,2
HWF 15×	Total magnification	10,5× - 67,5×	5,3× - 33,8×	7,9× - 50,6×	15,5× - 101,3×	21× - 135×
	Field of view mm	∅ 21,4 - 3,3	∅ 42,9 - 6,7	∅ 28,5 - 4,4	∅ 14,3 - 2,2	∅ 10,7 - 1,7
HSWF 20×	Total magnification	14× - 90×	7× - 45×	10,5× - 67,5×	21× - 135×	28× - 180×
	Field of view mm	∅ 14,3 - 2,2	∅ 28,6 - 4,4	∅ 19,1 - 2,9	∅ 9,5 - 1,5	∅ 7,1 - 1,1
HWF 25×	Total magnification	17,5× - 122,5×	8,8× - 56,3×	13,1× - 91,9×	26,3× - 168,8×	35× - 225×
	Field of view mm	∅ 12,9 - 2,0	∅ 25,7 - 4,0	∅ 17,2 - 2,7	∅ 8,6 - 1,3	∅ 6,4 - 1,0
<b>Working distance</b>		105 mm	177 mm	120 mm	47 mm	26 mm
<b>Maximum sample height</b>		140 mm	35 mm	80 mm	165 mm	185 mm

Model outfit		Model KERN						Order number	Price/piece excl. of VAT ex works €
		OZL 463	OZL 464	OZL 465	OZL 466	OZL 467	OZL 468		
Eyepieces (30,0 mm)	HWF 10×/∅ 20 mm	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	OZB-A4631	40,-
	HSWF 15×/∅ 15 mm	○	○	○	○	○	○	OZB-A4632	50,-
	HWF 20×/∅ 10 mm	○	○	○	○	○	○	OZB-A4633	50,-
	HSWF 25×/∅ 9 mm	○	○	○	○	○	○	OZB-A4634	55,-
Auxiliary objectives	0,5×	○	○	○	○	○	○	OZB-A4641	80,-
	0,75×	○	○	○	○	○	○	OZB-A4644	80,-
	1,5×	○	○	○	○	○	○	OZB-A4642	80,-
	2,0×	○	○	○	○	○	○	OZB-A4643	80,-
C-Mount	1× (focus adjustable)		✓		✓		✓	OZB-A4809	50,-
	0,3× (focus adjustable)		○		○		○	OZB-A4810	85,-
	0,5× (focus adjustable)		○		○		○	OZB-A4811	95,-
Stand	Pillar style, with 3 W-LED illumination (transmitted + incident)	✓	✓						
	Pillar style, with 3 W-LED illumination (transmitted)			✓	✓				
	Arm curved, incl. handle, with 3 W-LED illumination (transmitted + incident)					✓	✓		
Ring illumination	Integrated into the microscope head as incident illumination			✓	✓				
Stage plate	Frosted glass/∅ 95 mm	✓	✓	✓	✓	✓	✓	OZB-A4805	19,-
	Black-white/∅ 95 mm	✓	✓	✓	✓	✓	✓	OZB-A4806	19,-
External illumination	Please find the information about external illumination units in the catalogue on page 83 and on our website <a href="http://www.kern-sohn.com">www.kern-sohn.com</a>								

✓ = Included with delivery

○ = Option





04

**LAB LINE**

Stereo zoom microscope with or without halogen illumination, for the laboratory, training centres, quality control or agriculture

**Features**

- The KERN OZL-45 stereo zoom microscope series will impress you with its excellent optical characteristics, easy operation and high level of ergonomic working comfort
- The Halogen incident and transmitted illumination included as standard guarantees the very best illumination of your sample
- The high-quality optics, together with a large working surface offers the highest level of comfort for your applications
- The zoom objective offers you continuous magnification from 7,5×–50×
- The KERN OZL-45 series is available as a binocular version
- The pillar stand offers you the highest level of flexibility and the freedom to remove the microscope head and to integrate it into other modular systems, for example into a universal stand

- A large selection of eyepieces, external illumination units as well as auxiliary objectives 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**

- In vitro fertilisation, detection of parasites, zoology and botany, tissue preparation, section, quality control

**Applications/Samples**

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

**Technical data**

- Optical system: Greenough optics
- Brightness adjustable
- Tube 45° inclined
- Magnification ratio: 6,7:1
- Interpupillary distance 55 – 75 mm
- Diopter adjustment: Both-sided
- Overall dimensions W×D×H 330×270×460 mm
- Net weight approx. 5 kg

STANDARD



Model	Standard configuration						Price excl. of VAT ex works €
	Tube	Eyepiece	Field of view mm	Objective Zoom	Stand	Illumination	
<b>KERN</b>							
<b>OZL 451</b>	Binocular	HSWF 10×/ø 23 mm	ø 33 – 5	0,75× – 5,0×	Pillar style	12 V / 10 W Halogen (incident) 12 V / 10 W Halogen (transmitted)	<b>610,-</b>

Eyepiece	Specifications - Objectives				
	Magnification	Standard 1,0×	Auxiliary objectives		
			0,5×	0,75×	2,0×
HWF 5×	Total magnification	3,75× - 25×	1,875× - 12,5×	2,813× - 18,75×	7,5× - 50×
	Field of view mm	∅ 31 - 4,6	∅ 61,3 - 9,2	∅ 41,3 - 6,1	∅ 16 - 2,5
HSWF 10×	Total magnification	7,5× - 50×	3,75× - 25×	5,625× - 37,5×	15× - 100×
	Field of view mm	∅ 33 - 5	∅ 65 - 10	∅ 44 - 6,7	∅ 16 - 2,5
HWF 15×	Total magnification	11,25× - 75×	5,625× - 37,5×	8,438× - 56,25×	22,5× - 150×
	Field of view mm	∅ 24 - 4,2	∅ 48 - 8,5	∅ 32 - 5,6	∅ 12 - 2
HSWF 20×	Total magnification	15× - 100×	7,5× - 50×	11,25× - 75×	30× - 200×
	Field of view mm	∅ 20 - 3,5	∅ 40 - 7	∅ 26,7 - 4,7	∅ 10 - 1,8
HWF 25×	Total magnification	18,75× - 125×	9,375× - 62,5×	14,063× - 93,75×	37,5× - 255×
	Field of view mm	∅ 15,8 - 2,4	∅ 31,5 - 4,8	∅ 24,1 - 3,2	∅ 7,9 - 1,2
<b>Working distance</b>		113 mm	177 mm	117 mm	35 mm
<b>Maximum sample height</b>		120 mm	60 mm	90 mm	165 mm

Model outfit		Model KERN	Order number	Price/piece excl. of VAT ex works €
		OZL 451		
Eyepieces (30,0 mm)	HWF 5×/∅ 23,2 mm	○ ○	OZB-A4112	40,-
	HSWF 10×/∅ 23 mm	✓ ✓	OZB-A4118	40,-
	HWF 15×/∅ 15 mm	○ ○	OZB-A4119	40,-
	HSWF 20×/∅ 14,5 mm	○ ○	OZB-A4120	60,-
	HWF 25×/∅ 11,7 mm	○ ○	OZB-A4121	60,-
Auxiliary objectives	0,5×	○	OZB-A4209	120,-
	0,75×	○	OZB-A4210	120,-
	2,0×	○	OZB-A4206	115,-
Stand	Pillar style, with 12 V/ 10 W Halogen Illumination (transmitted + incident)	✓		
Stage plate	Frosted glass/∅ 95 mm	✓	OZB-A4805	19,-
	Black-white/∅ 95 mm	✓	OZB-A4806	19,-
Illumination	12 V/ 10 W spare bulb (transmitted + incident)	✓	OZB-A4804	19,-
Mechanical stage (Pre-assembling on request)	Stage size W×D 180×155 mm, Travel 75×55 mm, for transmitted and incident illumination	○	OZB-A4605	235,-
External illumination	Please find the information about external illumination units in the catalogue on page 83 and on our website <a href="http://www.kern-sohn.com">www.kern-sohn.com</a>			

✓ = Included with delivery

○ = Option



04

**LAB LINE**

The practical and flexible stereo zoom microscope with integrated LED ring illumination and large zoom range

**Features**

- The KERN OZL-456 stereo zoom microscope series will impress you with its excellent optical characteristics, easy operation and its integrated LED ring illumination unit
- The highlight of the KERN OZL-456 is the strong, continuously dimmable, integrated LED ring illumination in the objective housing, which ensures uniform, shadow-free illumination. An LED transmitted light variant is also included
- With its built-in, top-quality optics and powerful, integrated LED illumination unit, this model is a special all-rounder for all areas of application
- The zoom objective offers you continuous magnification from 7,5× – 50×
- As standard, the KERN OZL-45R series is provided as a binocular version with 10× eyepieces with a field of view with a diameter of 23 mm
- The arm curved stand gives you a large working area as well as a precise adjustment mechanism
- A large selection of eyepieces as well as auxiliary objectives 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**

- In vitro fertilisation, detection of parasites, zoology and botany, tissue preparation, section, quality control

**Applications/Samples**

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

**Technical data**

- Optical system: Greenough optics
- Incident illumination dimmable
- Tube 45° inclined
- Magnification ratio: 6,7:1
- Interpupillary distance 55 – 75 mm
- Diopter adjustment: Both-sided
- Overall dimensions W×D×H 320×275×420 mm
- Net weight approx. 4,5 kg

STANDARD

Model	Standard configuration						Price excl. of VAT ex works €
	Tube	Eyepiece	Field of view mm	Objective Zoom	Stand	Illumination	
<b>KERN</b>							
<b>OZL 456</b>	Binocular	HSWF 10×/ø 23 mm	ø 33 – 5	0,75× – 5,0×	Arm curved	1 W LED (incident); 0,21 W LED (transmitted)	<b>690,-</b>

Stereo zoom microscope KERN OZL-45R

Eyepiece	Specifications - Objectives		
	Magnification	Standard 1,0×	Auxiliary objectives
			2,0×
HWF 5×	Total magnification	3,75× - 25×	7,5× - 50×
	Field of view mm	∅ 31 - 4,6	∅ 16 - 2,5
HSWF 10×	Total magnification	7,5× - 50×	15× - 100×
	Field of view mm	∅ 33 - 5	∅ 16 - 2,5
HWF 15×	Total magnification	11,25× - 75×	22,5× - 150×
	Field of view mm	∅ 24 - 4,2	∅ 12 - 2
HSWF 20×	Total magnification	15× - 100×	30× - 200×
	Field of view mm	∅ 20 - 3,5	∅ 10 - 1,8
HWF 25×	Total magnification	18,75× - 125×	37,5× - 255×
	Field of view mm	∅ 15,8 - 2,4	∅ 7,9 - 1,2
<b>Working distance</b>		113 mm	35 mm
<b>Maximum sample height</b>		45 mm	95 mm

04

Model outfit		Model KERN	Order number	Price/piece excl. of VAT ex works €
		OZL 456		
Eyepieces (30,0 mm)	HWF 5×/∅ 23,2 mm	○ ○	OZB-A4112	40,-
	HSWF 10×/∅ 23 mm	✓ ✓	OZB-A4118	40,-
	HWF 15×/∅ 15 mm	○ ○	OZB-A4119	40,-
	HSWF 20×/∅ 14,5 mm	○ ○	OZB-A4120	60,-
	HWF 25×/∅ 11,7 mm	○ ○	OZB-A4121	60,-
Auxiliary objectives	2,0×	○	OZB-A4206	115,-
Stand	Arm curved, with LED illumination (0,21 W transmitted + 1 W incident)	✓		
Stage plate	Frosted glass/∅ 95 mm	✓	OZB-A4805	19,-
	Black-white/∅ 95 mm	✓	OZB-A4806	19,-
Mechanical stage (Pre-assembling on request)	Stage size W×D 180×155 mm, Travel 75×55 mm, for transmitted and incident illumination	○	OZB-A4605	235,-
External illumination	Please find the information about external illumination units in the catalogue on page 83 and on our website <a href="http://www.kern-sohn.com">www.kern-sohn.com</a>			

✓ = Included with delivery

○ = Option





04

## LAB LINE

First-class optics and strong illumination combined with a high level of flexibility

## Features

- The KERN OZM series is a range of excellent stereo zoom microscopes with above-average optical features
- The ergonomic shape allows a simple, effortless working over a period of several hours
- The extraordinarily strong and continuously dimmable 3 W LED reflected and transmitted illumination ensures a flexible and particularly good level of illumination for your sample
- With its large working distance, an extra large field of view and its brilliant resolution, the KERN OZM provides sharp, high-contrast, colour-true images
- The zoom objective gives you continuous magnification from 7,5×–45×
- There is a choice of a binocular model as well as a trinocular model for connecting a camera for documentation purposes and for quality reports
- The pillar stand is particularly flexible due to its variable and sturdy adjustment mechanism and therefore enables ergonomic working procedures
- A large selection of eyepieces, (universal) stands, a darkfield kit, external illumination units as well as auxiliary objectives and more are available as accessories
- A protective dust cover, eye cups, as well as multi-lingual user instructions are included in the scope of 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

- In vitro fertilisation, detection of parasites, zoology and botany, tissue preparation, section, quality control, electronics and semiconductor industry, assembly and repair

## Applications/Samples

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

## Technical data

- Optical system: Greenough optics
- Brightness adjustable (separate)
- Tube 45° inclined
- Magnification ratio: 6,4:1
- Light distribution OZM 543/544: 50:50
- Interpupillary distance 52 – 76 mm
- Diopter adjustment: Both-sided
- Overall dimensions W×D×H  
330×285×440 mm
- Net weight approx. 4,5 kg

## STANDARD



## OPTION



Model	Standard configuration						Price excl. of VAT ex works €
	Tube	Eyepiece	Field of view mm	Objective Zoom	Stand	Illumination	
<b>KERN</b>							
<b>OZM 542</b>	Binocular	HSWF 10×/ø 23 mm	ø 32,8 – 5,1	0,7× – 4,5×	Pillar style	3 W LED (incident); 3 W LED (transmitted)	<b>1070,-</b>
<b>OZM 544</b>	Trinocular	HSWF 10×/ø 23 mm	ø 32,8 – 5,1	0,7× – 4,5×	Pillar style	3 W LED (incident); 3 W LED (transmitted)	<b>1350,-</b>

## Stereo zoom microscope KERN OZM-5

Eyepiece	Specifications - Objectives					
	Magnification	Standard 1,0×	Auxiliary objectives			
			0,5×	0,7×	1,5×	2×
HSWF 10×	Total magnification	7× - 45×	3,5× - 22,5×	4,9× - 31,5×	10,5× - 67,5×	14× - 90×
	Field of view mm	∅ 32,8 - 5,1	∅ 65,7 - 10,2	∅ 46,9 - 7,3	∅ 21,9 - 3,4	∅ 16,4 - 2,6
SWF 15×	Total magnification	10,5× - 67,5×	5,3× - 33,8×	7,4× - 47,2×	15,8× - 101,3×	21× - 135×
	Field of view mm	∅ 24,3 - 3,8	∅ 48,6 - 7,6	∅ 34,7 - 5,4	∅ 16,2 - 2,5	∅ 12,1 - 1,9
SWF 20×	Total magnification	14× - 90×	7× - 45×	9,8× - 63×	21× - 135×	28× - 180×
	Field of view mm	∅ 20 - 3,1	∅ 40 - 6,2	∅ 28,6 - 4,4	∅ 13,3 - 2,1	∅ 10 - 1,6
SWF 30×	Total magnification	21× - 135×	10,5× - 67,5×	14,7× - 94,5×	31,5× - 202,5×	42× - 270×
	Field of view mm	∅ 12,9 - 2	∅ 25,7 - 4	∅ 18,4 - 2,9	∅ 8,6 - 1,6	∅ 6,4 - 1
<b>Working distance</b>		110 mm	195 mm	145 mm	50 mm	35 mm
<b>Maximum sample height</b>		130 mm	30 mm	65 mm	160 mm	175 mm

Model outfit		Model KERN		Order number	Price/piece excl. of VAT ex works €
		OZM 542	OZM 544		
Eyepieces (30,0 mm)	HSWF 10×/∅ 23 mm	✓✓	✓✓	OZB-A5503	60,-
	SWF 15×/∅ 17 mm	○○	○○	OZB-A5504	60,-
	SWF 20×/∅ 14 mm	○○	○○	OZB-A5505	70,-
	SWF 30×/∅ 9 mm	○○	○○	OZB-A5506	85,-
	HSWF 10×/∅ 23 mm (reticule 0,1 mm)	○	○	OZB-A5512	95,-
	SWF 15×/∅ 17 mm (reticule 0,05 mm)	○	○	OZB-A5513	110,-
	SWF 20×/∅ 14 mm (reticule 0,05 mm)	○	○	OZB-A5514	110,-
Achromatic auxiliary objectives	0,5×	○	○	OZB-A5612	120,-
	0,7×	○	○	OZB-A5613	120,-
	1,5×	○	○	OZB-A5615	120,-
	2,0×	○	○	OZB-A5616	120,-
	Soldering protection lens	○	○	OZB-A5614	45,-
C-Mount	0,3× (focus adjustable)		○	OZB-A5701	120,-
	0,5× (focus adjustable)		○	OZB-A5702	120,-
	1,0× (focus adjustable)		○	OZB-A5703	95,-
	1,0× (with micrometer) only in combination with OZB-A5703		○	OZB-A5704	255,-
	for SLR cameras (Nikon)		○	OZB-A5706	255,-
	for SLR cameras (Olympus)		○	OZB-A5707	255,-
	for SLR cameras (Canon)		○	OZB-A5708	255,-
Darkfield unit	Darkfield unit	○	○	OZB-A4601	70,-
Object clamp	Object clamp	○	○	OBB-A6205	35,-
Stand	Pillar style, without illumination				
	Pillar style, with 3 W LED illumination (transmitted + incident)	✓	✓		
	Please find more stands in the catalogue on page 79 and on our website <a href="http://www.kern-sohn.com">www.kern-sohn.com</a>				
Stage plate	Frosted glass/∅ 94,5 mm	✓	✓	OZB-A5192	19,-
	Black-white/∅ 94,5 mm	✓	✓	OZB-A5191	19,-
	Glass/∅ 94,5 mm	○	○	OZB-A5190	19,-
Mechanical stage (Pre-assembling on request)	Stage size W×D 188×160 mm, Travel 76×65 mm, for transmitted and incident illumination	○	○	OZB-A5781	175,-
	Stage size W×D 180×175 mm, Travel 100×86 mm, for incident illumination only	○	○	OZB-A5782	240,-
External illumination	Please find the information about external illumination units in the catalogue on page 83 and on our website <a href="http://www.kern-sohn.com">www.kern-sohn.com</a>				

✓ = Included with delivery

○ = Option



Trinocular version

04

**LAB LINE**

Professional and powerful – thanks to its extremely large magnification range, strong illumination and first-class optics

**Features**

- The KERN OZP stereo zoom microscope stands out through its above-average magnification range and its robust shape which is also ergonomic, it enables effortless, simple working over a period of several hours
- The KERN OZP series is available as a strong, continuously adjustable 3 W LED reflected and transmitted light variant for the very best illumination of your sample or as a variant without illumination
- With its large working distance, an extra large field of view and brilliant resolution, the KERN OZP provides sharp, high-contrast and colour-true images
- The extremely large, continuously adjustable magnification range from 6 to 55 times magnification means that you can work quickly and effectively
- There is a choice of a binocular model as well as a trinocular model for connecting a camera for documentation purposes and for quality reports
- The pillar stand is particularly flexible due to its variable and sturdy adjustment mechanism and therefore enables ergonomic working procedures
- A large selection of eyepieces, (universal) stands, a darkfield kit, external illumination units as well as auxiliary objectives and more are available as accessories
- A protective dust cover, eye cups, as well as multi-lingual user instructions are included in the scope of 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**

- Zoology and botany, quality control, electronics and semiconductor industry, assembly and repair

**Applications/Samples**

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

**Technical data**

- Optical system: Greenough optics
- Brightness adjustable (separate)
- Tube: 35° inclined
- Magnification ratio: 9,2:1
- Light distribution OZP 557/558: 50:50
- Interpupillary distance 52 – 76 mm
- Diopter adjustment: Both-sided
- Overall dimensions W×D×H 330×285×470 mm
- Net weight approx. 4,5 kg

STANDARD



OPTION



Model	Standard configuration						Price excl. of VAT ex works €
	Tube	Eyepiece	Field of view mm	Objective Zoom	Stand	Illumination	
<b>KERN</b>							
<b>OZP 556</b>	Binocular	HSWF 10×/ø 23 mm	ø 38,3 – 4,2	0,6× – 5,5×	Pillar style	3 W LED (incident); 3 W LED (transmitted)	<b>1230,-</b>
<b>OZP 558</b>	Trinocular	HSWF 10×/ø 23 mm	ø 38,3 – 4,2	0,6× – 5,5×	Pillar style	3 W LED (incident); 3 W LED (transmitted)	<b>1530,-</b>

Eyepiece	Specifications - Objectives					
	Magnification	Standard 1,0×	Auxiliary objectives			
			0,5×	0,7×	1,5×	2×
HSWF 10×	Total magnification	6× - 55×	3× - 27,5×	4,2× - 38,5×	9× - 82,5×	12× - 110×
	Field of view mm	∅ 38,3 - 4,2	∅ 76,7 - 8,4	∅ 54,8 - 6	∅ 25,6 - 2,8	∅ 19,2 - 2,1
SWF 15×	Total magnification	9× - 82,5×	4,5× - 41,25×	6,3× - 57,75×	13,5× - 123,75×	18× - 165×
	Field of view mm	∅ 28,3 - 3,1	∅ 56,7 - 6,2	∅ 40,5 - 4,4	∅ 18,9 - 2,1	∅ 14,2 - 1,5
SWF 20×	Total magnification	12× - 110×	6× - 55×	8,4× - 77×	18× - 165×	24× - 220×
	Field of view mm	∅ 23,3 - 2,5	∅ 46,7 - 5,1	∅ 33,3 - 3,6	∅ 15,6 - 1,7	∅ 11,7 - 1,3
SWF 30×	Total magnification	18× - 165×	9× - 82,5×	12,6× - 115,5×	27× - 247,5×	36× - 330×
	Field of view mm	∅ 15 - 1,6	∅ 30 - 3,3	∅ 21,4 - 2,3	∅ 10 - 1,1	∅ 7,5 - 0,8
<b>Working distance</b>		108 mm	195 mm	145 mm	50 mm	35 mm
<b>Maximum sample height</b>		110 mm	10 mm	45 mm	140 mm	150 mm

Model outfit		Model KERN		Order number	Price/piece excl. of VAT ex works €
		OZP 556	OZP 558		
Eyepieces (30,0 mm)	HSWF 10×/∅ 23 mm	✓✓	✓✓	OZB-A5503	60,-
	SWF 15×/∅ 17 mm	○○	○○	OZB-A5504	60,-
	SWF 20×/∅ 14 mm	○○	○○	OZB-A5505	70,-
	SWF 30×/∅ 9 mm	○○	○○	OZB-A5506	85,-
	HSWF 10×/∅ 23 mm (reticule 0,1 mm)	○	○	OZB-A5512	95,-
	SWF 15×/∅ 17 mm (reticule 0,05 mm)	○	○	OZB-A5513	110,-
	SWF 20×/∅ 14 mm (reticule 0,05 mm)	○	○	OZB-A5514	110,-
Achromatic auxiliary objectives	0,5×	○	○	OZB-A5612	120,-
	0,7×	○	○	OZB-A5613	120,-
	1,5×	○	○	OZB-A5615	120,-
	2,0×	○	○	OZB-A5616	120,-
	Soldering protection lens	○	○	OZB-A5614	45,-
C-Mount	0,3× (focus adjustable)		○	OZB-A5701	120,-
	0,5× (focus adjustable)		○	OZB-A5702	120,-
	1,0× (focus adjustable)		○	OZB-A5703	95,-
	1,0× (with micrometer) only in combination with OZB-A5703		○	OZB-A5704	255,-
	for SLR cameras (Nikon)		○	OZB-A5706	255,-
	for SLR cameras (Olympus)		○	OZB-A5707	255,-
	for SLR cameras (Canon)		○	OZB-A5708	255,-
Darkfield unit	Darkfield unit	○	○	OZB-A4601	70,-
Object clamp	Object clamp	○	○	OBB-A6205	35,-
Stand	Pillar style, without illumination				
	Pillar style, with 3 W LED illumination (transmitted + incident)	✓	✓		
	Please find more stands in the catalogue on page 79 and on our website <a href="http://www.kern-sohn.com">www.kern-sohn.com</a>				
Stage plate	Frosted glass/∅ 94,5 mm		✓	OZB-A5192	19,-
	Black-white/∅ 94,5 mm	✓	✓	OZB-A5191	19,-
	Glass/∅ 94,5 mm		○	OZB-A5190	19,-
Mechanical stage (Pre-assembling on request)	Stage size W×D 188×160 mm, Travel 76×65 mm, for incident and transmitted illumination	○	○	OZB-A5781	175,-
	Stage size W×D 180×175 mm, Travel 100×86 mm, for incident illumination only	○	○	OZB-A5782	240,-
External illumination	Please find the information about external illumination units in the catalogue on page 83 and on our website <a href="http://www.kern-sohn.com">www.kern-sohn.com</a>				

✓ = Included with delivery

○ = Option





OZR 564  
With illumination



OZR 563  
Without illumination

**PROFESSIONAL LINE**

Professional stereo zoom microscope with parallel optics for excellent images, depth of field, contrast and fatigue-free working

**Features**

- The KERN OZR series is a special, high-quality stereo zoom microscope with parallel optics for demanding analyses
- The KERN OZR series is available as a strong, continuously adjustable 3 W LED reflected and transmitted light variant for the very best illumination of your sample or as a variant without illumination
- The parallel optical system is a high-quality optical system and provides excellent images with the best contrast, colour and depth of field with fatigue-free working. Refocusing is also only necessary in very few cases when magnifying the zoom
- The continuously adjustable magnification range from 8 to 50 times magnification means that you can work quickly and effectively
- As standard, the models of the KERN OZR series are trinocular and are therefore equipped for connecting a camera for documentation purposes and for quality reports
- The pillar stand is particularly flexible due to its variable and sturdy adjustment mechanism and therefore enables ergonomic working procedures
- A large selection of eyepieces, (universal) stands, a darkfield kit, external illumination units as well as auxiliary objectives and more are available as accessories
- A protective dust cover, eye cups, as well as multi-lingual user instructions are included in the scope of 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**

- In vitro fertilisation, detection of parasites, zoology and botany, tissue preparation, section, quality control, electronics and semiconductor industry, assembly and repair

**Applications/Samples**

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

**Technical data**

- Optical system: Parallel optics
- Brightness adjustable (separate)
- Tube 45° inclined
- Magnification ratio: 6,25:1
- Light distribution 50:50
- Interpupillary distance 52 – 76 mm
- Diopter adjustment: Both-sided
- Overall dimensions W×D×H 305×300×540 mm
- Net weight approx. 5,5 kg

STANDARD



OPTION



Model	Standard configuration						Price excl. of VAT ex works €
	Tube	Eyepiece	Field of view mm	Objective Zoom	Stand	Illumination	
<b>KERN</b>							
<b>OZR 563</b>	Trinocular	HWF 10×/ø 22 mm	ø 27,5 – 4,4	0,8× – 5×	Pillar style	–	<b>1550,-</b> ↓
<b>OZR 564</b>	Trinocular	HWF 10×/ø 22 mm	ø 27,5 – 4,4	0,8× – 5×	Pillar style	3 W LED (incident); 3 W LED (transmitted)	<b>1750,-</b> ↓

ONLY WHILE STOCKS LAST

↓ Price reduction

Stereo zoom microscope KERN OZR-5

Eyepiece	Specifications - Objectives				
	Magnification	Standard Plan 1,0×	Achromatic objectives		
			0,5×	0,7×	1,5× (Auxiliary)
HWF 10×	Total magnification	8× - 50×	4× - 25×	5,6× - 35×	12× - 75×
	Field of view mm	∅ 27,5 - 4,4	∅ 55 - 8,8	∅ 39,3 - 6,3	∅ 18,33 - 2,93
SWF 15×	Total magnification	12× - 75×	6× - 37,5×	8,4× - 5,5×	18× - 112,5×
	Field of view mm	∅ 21,25 - 3,4	∅ 42,5 - 6,8	∅ 30,36 - 4,86	∅ 14,17 - 2,27
SWF 20×	Total magnification	16× - 100×	8× - 50×	11,2× - 70×	24× - 150×
	Field of view mm	∅ 17,5 - 2,8	∅ 35 - 5,6	∅ 25 - 4	∅ 11,67 - 1,87
SWF 30×	Total magnification	24× - 150×	12× - 75×	16,8× - 105×	36× - 225×
	Field of view mm	∅ 11,25 - 1,8	∅ 22,5 - 3,6	∅ 16,1 - 2,57	∅ 7,5 - 1,2
<b>Working distance</b>		91 mm	186 mm	135 mm	40 mm
<b>Maximum sample height</b>		100 mm	30 mm	80 mm	125 mm

Model outfit		Model KERN		Order number	Price/piece excl. of VAT ex works €
		OZR 563	OZR 564		
Eyepieces (30,0 mm)	HWF 10×/∅ 22 mm	✓✓	✓	OZB-A5502	60,-
	SWF 15×/∅ 17 mm	○○	○○	OZB-A5504	60,-
	SWF 20×/∅ 14 mm	○○	○○	OZB-A5505	70,-
	SWF 30×/∅ 9 mm	○○	○○	OZB-A5506	85,-
	HWF 10×/∅ 22 mm (reticule 0,1 mm)	○	○	OZB-A5511	95,-
	SWF 15×/∅ 17 mm (reticule 0,05 mm)	○	○	OZB-A5513	110,-
	SWF 20×/∅ 14 mm (reticule 0,05 mm)	○	○	OZB-A5514	110,-
<b>Plan achromatic objective</b>	1,0×	✓	✓	OZB-A5603	490,-
<b>Achromatic objectives</b>	0,5×	○	○	OZB-A5601	205,-
	0,7×	○	○	OZB-A5602	205,-
	1,5× Only in combination with OZB-A5603	○	○	OZB-A5604	265,-
<b>Trinocular beamsplitter</b>	Division 100:0	✓	✓	OZB-A5401	575,-
	Division 50:50	○	○	OZB-A5402	575,-
<b>C-Mount</b>	0,3× (focus adjustable)	○	○	OZB-A5701	120,-
	0,5× (focus adjustable)	○	○	OZB-A5702	120,-
	1,0× (focus adjustable)	○	○	OZB-A5703	95,-
	1,0× (with micrometer) only in combination with OZB-A5703	○	○	OZB-A5704	255,-
	for SLR cameras (Nikon)	○	○	OZB-A5706	255,-
	for SLR cameras (Olympus)	○	○	OZB-A5707	255,-
	for SLR cameras (Canon)	○	○	OZB-A5708	255,-
<b>Darkfield unit</b>	Darkfield unit		○	OZB-A4601	70,-
<b>Object clamp</b>	Object clamp	○	○	OBB-A6205	35,-
<b>Stand</b>	Pillar style, without illumination	✓			
	Pillar style, with 3 W LED illumination (transmitted + incident)		✓		
<b>Stage plate</b>	Frosted glass/∅ 94,5 mm		✓	OZB-A5192	19,-
	Black-white/∅ 94,5 mm	✓	✓	OZB-A5191	19,-
	Glass/∅ 94,5 mm		○	OZB-A5190	19,-
<b>Mechanical stage</b> (Pre-assembling on request)	Stage size W×D 188×160 mm, Travel 76×65 mm, for incident and transmitted illumination	○	○	OZB-A5781	175,-
	Stage size W×D 180×175 mm, Travel 100×86 mm, for incident illumination only	○	○	OZB-A5782	240,-
<b>External illumination</b>	Please find the information about external illumination units in the catalogue on page 83 and on our website <a href="http://www.kern-sohn.com">www.kern-sohn.com</a>				

✓ = Included with delivery

○ = Option



OZS 574  
With illumination



OZS 573  
Without illumination

**PROFESSIONAL LINE**

High-quality parallel optics for the best images, depth of field and contrast – with extra large zoom range

**Features**

- The devices in the KERN OZS series are special, high-quality stereo zoom microscopes with parallel optics and an above-average zoom range for demanding analyses
- The KERN OZS series is available as a strong, continuously adjustable 3 W LED reflected and transmitted light variant for the very best illumination of your sample or as a variant without illumination
- The parallel optics is a high-quality optical system and provides excellent images with the best contrast, colour and depth of field with fatigue-free working
- The exceptionally large, adjustable magnification range from 8 to 80 times magnification gives you continuous zoom for the views you need
- As standard, the models of the KERN OZS series are trinocular and therefore equipped for connecting a camera for documentation purposes and for quality reports
- These models are particularly flexible due to the modular construction, the pillar stand as well as the powerful, longlife LED reflected and transmitted illumination which can be integrated as an option
- A large selection of eyepieces, (universal) stands, a darkfield kit, external illumination units as well as auxiliary objectives and more are available as accessories
- A protective dust cover, eye cups, as well as multi-lingual user instructions are included in the scope of delivery
- A C-mount adapter is required to connect a camera. You can select this adapter from the following model outfit list
- Please find detailed information in the following model outfit list

**Scope of application**

- In vitro fertilisation, detection of parasites, zoology and botany, tissue preparation, section, quality control, electronics and semiconductor industry, assembly and repair

**Applications/Samples**

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

**Technical data**

- Optical system: Parallel optics
- Brightness adjustable (separate)
- Tube 45° inclined
- Magnification ratio: 10:1
- Light distribution 50:50
- Interpupillary distance 52 – 76 mm
- Diopter adjustment: Both-sided
- Overall dimensions W×D×H 305×300×540 mm
- Net weight approx. 5,5 kg

STANDARD



OPTION



Model	Standard configuration						Price excl. of VAT ex works €
	Tube	Eyepiece	Field of view mm	Objective Zoom	Stand	Illumination	
<b>KERN</b>							
<b>OZS 573*</b>	Trinocular	HWF 10×/ø 22 mm	ø 27,5 – 2,75	0,8× – 8×	Pillar style	-	<b>2350,-</b>
<b>OZS 574</b>	Trinocular	HWF 10×/ø 22 mm	ø 27,5 – 2,75	0,8× – 8×	Pillar style	3 W LED (incident); 3 W LED (transmitted)	<b>2960,-</b>

\*ONLY WHILE STOCKS LAST

Price reduction

Stereo zoom microscope KERN OZS-5

Eyepiece	Specifications - Objectives				
	Magnification	Standard Plan 1,0×	Achromatic objectives		
			0,5×	0,7×	1,5× (Auxiliary)
HWF 10×	Total magnification	8× - 80×	4× - 40×	5,6× - 56×	12× - 120×
	Field of view mm	∅ 27,5 - 2,75	∅ 55 - 5,5	∅ 39,3 - 3,93	∅ 18,33 - 1,83
SWF 15×	Total magnification	12× - 120×	6× - 60×	8,4× - 84×	18× - 180×
	Field of view mm	∅ 21,25 - 2,13	∅ 42,5 - 4,25	∅ 30,36 - 3,04	∅ 14,17 - 1,42
SWF 20×	Total magnification	16× - 160×	8× - 80×	11,2× - 112×	24× - 240×
	Field of view mm	∅ 17,5 - 1,75	∅ 35 - 3,5	∅ 25 - 2,5	∅ 11,67 - 1,17
SWF 30×	Total magnification	24× - 240×	12× - 120×	16,8× - 168×	36× - 360×
	Field of view mm	∅ 11,25 - 1,13	∅ 22,5 - 2,25	∅ 16,1 - 1,61	∅ 7,5 - 0,75
Working distance		91 mm	186 mm	135 mm	40 mm
Maximum sample height		100 mm	30 mm	80 mm	125 mm

Model outfit		Model KERN		Order number	Price/piece excl. of VAT ex works €
		OZS 573	OZS 574		
Eyepieces (30,0 mm)	HWF 10×/∅ 22 mm	✓✓	✓	OZB-A5502	60,-
	SWF 15×/∅ 17 mm	○○	○○	OZB-A5504	60,-
	SWF 20×/∅ 14 mm	○○	○○	OZB-A5505	70,-
	SWF 30×/∅ 9 mm	○○	○○	OZB-A5506	85,-
	HWF 10×/∅ 22 mm (reticule 0,1 mm)	○	○	OZB-A5511	95,-
	SWF 15×/∅ 17 mm (reticule 0,05 mm)	○	○	OZB-A5513	110,-
	SWF 20×/∅ 14 mm (reticule 0,05 mm)	○	○	OZB-A5514	110,-
Plan achromatic objective	1,0×	✓	✓	OZB-A5603	490,-
Achromatic objectives	0,5×	○	○	OZB-A5601	205,-
	0,7×	○	○	OZB-A5602	205,-
	1,5× Only in combination with OZB-A5603	○	○	OZB-A5604	265,-
Trinocular beamsplitter	Division 100:0	✓	✓	OZB-A5401	575,-
	Division 50:50	○	○	OZB-A5402	575,-
C-Mount	0,3× (focus adjustable)	○	○	OZB-A5701	120,-
	0,5× (focus adjustable)	○	○	OZB-A5702	120,-
	1,0× (focus adjustable)	○	○	OZB-A5703	95,-
	1,0× (with micrometer) only in combination with OZB-A5703	○	○	OZB-A5704	255,-
	for SLR cameras (Nikon)	○	○	OZB-A5706	255,-
	for SLR cameras (Olympus)	○	○	OZB-A5707	255,-
	for SLR cameras (Canon)	○	○	OZB-A5708	255,-
Darkfield unit	Darkfield unit		○	OZB-A4601	70,-
Object clamp	Object clamp	○	○	OBB-A6205	35,-
Stand	Pillar style, without illumination	✓			
	Pillar style, with 3 W LED illumination (transmitted + incident)		✓		
Stage plate	Frosted glass/∅ 94,5 mm		✓	OZB-A5192	19,-
	Black-white/∅ 94,5 mm	✓	✓	OZB-A5191	19,-
	Glass/∅ 94,5 mm		○	OZB-A5190	19,-
Mechanical stage (Pre-assembling on request)	Stage size W×D 188×160 mm, Travel 76×65 mm, for incident and transmitted illumination	○	○	OZB-A5781	175,-
	Stage size W×D 180×175 mm, Travel 100×86 mm, for incident illumination only	○	○	OZB-A5782	240,-
External illumination	Please find the information about external illumination units in the catalogue on page 83 and on our website <a href="http://www.kern-sohn.com">www.kern-sohn.com</a>				

✓ = Included with delivery

○ = Option





Plug in for power supply

04

**PROFESSIONAL LINE**

The coaxial with parallel optics for excellent contrast and depth of field

**Features**

- The KERN OZC has been developed specially to meet requirements for high contrast and depth of field. These devices are absolutely essential for the LCD/LED electronics industry
- The coaxial 2 W LED reflected illumination which is integrated into the objective guarantees selective depth of focus, so that even low-lying sections can be recorded (e.g. the bottom of a drilled hole)
- The parallel optics is a high-quality optical system and provides excellent images with the best contrast, colour and depth of field with fatigue-free working. Refocusing is also only necessary in very few cases when magnifying the zoom
- The large, adjustable magnification range from 18 to 65 times gives you continuous zoom when you are working
- As standard, the KERN OZC is trinocular and is therefore equipped for connecting a camera for documentation purposes and for quality reports
- The arm curved stand ensures precise adjustment and focusing of your sample. The stand base is particularly heavy and therefore offers a high level of stability and an extremely secure footing
- A large selection of eyepieces and a mechanical stage extension are available as accessories
- A protective dust cover, eye cups, as well as multi-lingual user instructions are included in the scope of delivery
- A C-mount adapter is required to connect a camera. You can select this adapter from the following model outfit list
- Please find detailed information in the following model outfit list

**Scope of application**

- LCD/LED electronics, semiconductor technology

**Applications/Samples**

- Samples with focus on three-dimensional impression (depth, thickness), zoom for variable magnification, e.g. LCD/LED electronics, circuit boards, ICs

**Technical data**

- Optical system: Parallel optics
- Brightness adjustable
- Tube 45° inclined
- Magnification ratio: 3,6:1
- Light distribution 50:50
- Interpupillary distance 52 - 76 mm
- Diopter adjustment: Both-sided
- Overall dimensions W×D×H 305×180×405 mm
- Net weight approx. 6,6 kg.

STANDARD



OPTION



Model	Standard configuration						Price excl. of VAT ex works €
	Tube	Eyepiece	Field of view mm	Objective Zoom	Stand	Illumination	
<b>KERN</b>							
<b>OZC 583</b>	Trinocular	HSWF 10×/ø 23 mm	ø 12,78 - 3,5	1,8× - 6,5×	Arm curved	2 W LED (coaxial incident)	<b>3190,-</b>

**\* ONLY WHILE STOCKS LAST**

Price reduction

# Coaxial microscope KERN OZC-5

Eyepiece	Specifications - Objectives	
	Magnification	Standard 1,0×
HWF 10×	Total magnification	18× - 65×
	Field of view mm	∅ 12,78 - 3,5
SWF 15×	Total magnification	27× - 97,5×
	Field of view mm	∅ 9,5 - 2,6
SWF 20×	Total magnification	36× - 130×
	Field of view mm	∅ 7,78 - 2,2
SWF 30×	Total magnification	54× - 195×
	Field of view mm	∅ 5 - 1,4
<b>Working distance</b>		92 mm
<b>Maximum sample height</b>		35 mm

Model outfit		Model KERN	Order number	Price/piece excl. of VAT ex works €
		OZC 583		
Eyepieces (30,0 mm)	HSWF 10×/∅ 23 mm	✓✓	OZB-A5503	60,-
	SWF 15×/∅ 17 mm	○○	OZB-A5504	60,-
	SWF 20×/∅ 14 mm	○○	OZB-A5505	70,-
	SWF 30×/∅ 9 mm	○○	OZB-A5506	85,-
	HSWF 10×/∅ 23 mm (reticule 0,1 mm)	○	OZB-A5512	95,-
	SWF 15×/∅ 17 mm (reticule 0,05 mm)	○	OZB-A5513	110,-
	SWF 20×/∅ 14 mm (reticule 0,05 mm)	○	OZB-A5514	110,-
C-Mount	0,3× (focus adjustable)	○	OZB-A5701	120,-
	0,5× (focus adjustable)	○	OZB-A5702	120,-
	1,0× (focus adjustable)	○	OZB-A5703	95,-
	1,0× (with micrometer) only in combination with OZB-A5703	○	OZB-A5704	255,-
	for SLR cameras (Nikon)	○	OZB-A5706	255,-
	for SLR cameras (Olympus)	○	OZB-A5707	255,-
	for SLR cameras (Canon)	○	OZB-A5708	255,-
Stand	Arm curved, without illumination	✓		
External illumination	Please find the information about external illumination units in the catalogue on page 83 and on our website <a href="http://www.kern-sohn.com">www.kern-sohn.com</a>			

✓ = Included with delivery

○ = Option



OZG 493



OZG 497 \*



Backside of OZG 497



Tilt positions



Tilt positions

04

LAB LINE

The specialist for jewellers and the gem industry

Features

- The KERN OZG series has been specially developed for jewellers and mineral observations in the gem industry. Precious stones and gems can be checked and handled with this stereo zoom microscope
- You have a choice of a strong halogen transmitted illumination unit as well as halogen reflected and transmitted illumination variants, each with an additional frontal illumination
- As well as very good optical characteristics, these models form an ideal package with their dark field unit with object clamp which is included in the scope of delivery
- The KERN OZG 493 is fitted with a pillar stand as well as an integrated bright halogen light unit with reflected and transmitted illumination
- The KERN OZG 497 has a arm curved stand, which is extremely flexible as it can be tilted and rotated Together with the powerful illumination units, which also includes a single fiber. This is an ideal solution for jewellers and the gem industry

- A protective dust cover, eye cups, as well as multi-lingual user instructions are included in the scope of 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

- Jewellers and gem industry

Applications/Samples

- Samples with focus on three-dimesnional impression (depth, thickness), zoom for variable magnification, special stand for processing workpieces e.g. gems, components, precious stones

Technical data

- Optical system: Greenough optics
- Brightness adjustable
- Tube 45° inclined
- Interpupillary distance 55 – 75 mm
- Diopter adjustment: Both-sided

OZG 493

- Magnification ratio: 5,1:1
- Overall dimensions W×D×H 310×170×350 mm
- Net weight approx. 5 kg

OZG 497

- Magnification ratio: 6,7:1
- Light distribution 50:50
- Overall dimensions W×D×H 340×235×480 mm
- Net weight approx. 11,5 kg

STANDARD



Model	Standard configuration						Price excl. of VAT ex works €
	Tube	Eyepiece	Field of view mm	Objective Zoom	Stand	Illumination	
<b>KERN</b>							
<b>OZG 493</b>	Binocular	WF 10×/ø 20 mm	ø 26,7 – 5,6	0,7× – 3,6×	Pillar style	12 V/10 W Halogen (incident) 12 V/10 W Halogen (transmitted) 10 W Fluorescence (front illumination)	<b>495,-</b>
<b>OZG 497 *</b>	Trinocular	HSWF 10×/ø 23 mm	ø 33 – 5,1	0,75× – 5,0×	Arm curved	12 V/10 W Halogen (transmitted) 10 W Fluorescence (front illumination including single fiber)	<b>1290,-</b>

\* ONLY WHILE STOCKS LAST

Price reduction

OZG 493	Specifications - Objectives	
Eyepiece	Magnification	Standard 1,0×
WF 5×	Total magnification	3,75× - 18×
	Field of view mm	∅ 26 - 6
WF 10×	Total magnification	7,5× - 36×
	Field of view mm	∅ 26,7 - 5,6
WF 15×	Total magnification	11,25× - 54×
	Field of view mm	∅ 19 - 4,5
WF 20×	Total magnification	15× - 72×
	Field of view mm	∅ 12,5 - 3
<b>Working distance</b>		86 mm

OZG 497	Specifications - Objectives	
Eyepiece	Magnification	Standard 1,0×
HWF 5×	Total magnification	3,75× - 25×
	Field of view mm	∅ 31 - 4,6
HSWF 10×	Total magnification	7,5× - 50×
	Field of view mm	∅ 33 - 5
HWF 15×	Total magnification	11,25× - 75×
	Field of view mm	∅ 24 - 4,2
HSWF 20×	Total magnification	15× - 100×
	Field of view mm	∅ 20 - 3,5
HWF 25×	Total magnification	18,75× - 125×
	Field of view mm	∅ 15,8 - 2,4
<b>Working distance</b>		113 mm

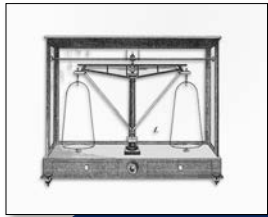
Model outfit		Model KERN		Order number	Price/piece excl. of VAT ex works €
		OZG 493	OZG 497		
Eyepieces (30,5 mm)	WF 5×/∅ 16,2 mm	○ ○		OZB-A4101	35,-
	WF 10×/∅ 20 mm	✓ ✓		OZB-A4102	35,-
	WF 15×/∅ 15 mm	○ ○		OZB-A4103	30,-
	WF 20×/∅ 10 mm	○ ○		OZB-A4104	30,-
Eyepieces (30,0 mm)	HWF 5×/∅ 23,2 mm		○ ○	OZB-A4112	40,-
	HSWF 10×/∅ 23 mm		✓ ✓	OZB-A4118	40,-
	HWF 15×/∅ 15 mm		○ ○	OZB-A4119	40,-
	HSWF 20×/∅ 14,5 mm		○ ○	OZB-A4120	60,-
	HWF 25×/∅ 11,7 mm		○ ○	OZB-A4121	60,-
C-Mount	1,0× (focus adjustable)		○	OZB-A4809	50,-
	0,3× (focus adjustable)		○	OZB-A4810	85,-
	0,5× (focus adjustable)		○	OZB-A4811	95,-
Darkfield unit	Darkfield unit	✓	✓	OZB-A4601	70,-
Object clamp	Object clamp (steel wire)	✓	✓	OZB-A4604	30,-
Stand	Pillar style, with 12 V/10 W Halogen (transmitted + incident) and 10 W Fluorescent illumination (front)	✓			
	Arm curved, with 12 V/10 W Halogen (transmitted) and 10 W Fluorescent illumination (front) + Single fiber illumination		✓		
Stage plate	Frosted glass/∅ 95 mm	✓		OZB-A4805	19,-
	Black-white/∅ 95 mm	✓		OZB-A4806	19,-
Illumination	12 V/10 W spare bulb (transmitted + incident)	✓	✓	OZB-A4804	19,-

✓ = Included with delivery

○ = Option

# KERN – Tradition and Innovation for over 170 years

An independent family business, KERN since already 8 generations is synonymous with quality and reliability in customer service.



**1844**

KERN is founded – precision balances are produced



**1863**

A proud Gottlieb Kern with his staff



**1880**

Pharmaceutical balance with Aesculap



**1923**

Inflation – KERN wages are paid with self printed currency



**1980**

The electronic balance ousts mechanical devices



**1994**

Accredited DKD laboratory (ISO 17025)



**2000**

New premises in Balingen



**2002**

Existing QM system certification in accordance with DIN EN ISO 9001:2000 standards



**2007**

Approval for the manufacture of medical products (DIN EN 13485 and 93/42/EEC)



**2008**

Authorisation for initial verification by the manufacturer (2009/23/EC)



**2009**

Approval for the manufacture and sale of height rods (DIN EN 13485 and 93/42/EEC)



**2012**

Verification point for non-automatic balances and test weights.

New customer portal [www.kern-sohn.com](http://www.kern-sohn.com) goes live



**2014**

Expansion of the product range to include optical instruments (microscopes and refractometers)



**2015**

Inauguration of Ziegelei 2.0 with computer-controlled high-bay warehouse



**2017**

Come with KERN into the digital future: Expansion of the model ranges compatible with Industry 4.0, as well as the related services

**KERN & SOHN GmbH Microscopes and Refractometers**  
Ziegelei 1 72336 Balingen Germany

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