

POLARISING MICROSCOPES

Laboratory | Industry | Food Industry



PROFESSIONAL MEASURING

2025

KERN Pictograms

 360° rotatable microscope head	 Fluorescence illumination for compound microscopes With 100 W mercury lamp and filter	 Integrated scale In the eyepiece	 Battery operation Ready for battery operation. The battery type is specified for each device.
 Monocular Microscope For the inspection with one eye	 Fluorescence illumination for compound microscopes With 3 W LED illumination and filter	 SD card For data storage	 Rechargeable battery pack Rechargeable set
 Binocular Microscope For the inspection with both eyes		 USB 2.0 interface For data transmission	 Plug-in power supply 230V/50Hz in standard version for EU. On request GB, AUS or USA version.
 Trinocular Microscope For the inspection with both eyes and the additional option for the connection of a camera	 Phase contrast unit For a higher contrast	 USB 3.0 interface For data transmission	
 Abbe Condenser With high numerical aperture for the concentration and the focusing of light	 Darkfield condenser/unit For a higher contrast due to indirect illumination	 WIFI data interface: For transmitting of the picture to a mobile display device	 Integrated power supply unit Integrated in microscope. 230V/50Hz standard EU. More standards e.g. GB, AUS or USA on request.
 Halogen illumination For pictures bright and rich in contrast	 Polarising unit To polarise the light	 HDMI digital camera For direct transmitting of the picture to a display device	
 LED illumination Cold, energy-saving and especially long-life illumination	 Infinity system Infinity corrected optical system	 PC software To transfer the measurements from the device to a PC.	 Package shipment The time required to manufacture the product internally is shown in days in the pictogram.
 Incident illumination For non-transparent objects	 Zoom magnification For stereomicroscopes	 Automatic temperature compensation For measurements between 10 °C and 30 °C	 Pallet shipment The time required to manufacture the product internally is shown in days in the pictogram.
 Transmitting illumination For transparent objects	 Auto-focus For automatic control of the focus level	 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	
 Fluorescence illumination For stereomicroscopes	 Parallel optical system For stereomicroscopes, enables fatigue-proof working		

Abbreviations

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

KERN Models A – Z

OAB-L 108

OBE-12 · OBE-13 12

OBE-S 65

OBL-12 · OBL-13 14

OBL-14 · OBL-15 16

OBL-S · OBN-S 66

OBN-13 · OBN-15 18

OBN-14 NEW 20

OBS-1 8

OBT-1 · OBT-2 NEW 10

OCM-1 22

OCS-9 24

ODC-24 88

ODC-25 NEW 89

ODC-82 · ODC-83 · ODC-84 85

ODC-85 · ODC-86 86

ODC-87 · ODC-88 · ODC-89 87

OIV-2 62

OIV-3 · OIV-9 NEW 60

OIV-6 63

OKM-1 26

OKO-1 28

OLM-1 30

OPO-1 33

ORA 92-98

ORL-B 105

ORM 99-104

OSE-4 · OZL-9 · OZM-9 71

OSE-42 36

OSF-43 38

OXM-9 90

OZB-H 81

OZB-IR 83

OZB-M 74

OZB-UE 80

OZB-UP 79

OZG-4 56

OZL-44 40

OZL-45 46

OZL-45R 48

OZL-46 42

OZL-47 44

OZL-S 67

OZM-5 50

OZM-9 70

OZM-S · OZP-S 68

OZP-5 52

OZS-5 54

NEW New model

KERN Customer Consultants

With questions about our products and services, we will be happy to advise you:

UK, BE, IE, IS, LU, NL



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KERN Hotlines



Technical questions about our products?

You will find assistance here quickly: +49 7433 9933 - ...

Service-Hotline

for general technical questions about your KERN product

→ 199

Optical Devices

for all technical questions concerning our microscopes, microscope cameras, refractometers, etc.

→ 777

Laboratory and Analytical Balances

for all technical questions concerning our high quality precision balances, analytical balances (especially with electromagnetic force-compensated measuring systems, tuning fork and high application density)

→ 444

SAUTER Measuring Instruments

for all technical questions concerning our SAUTER measuring instruments, test benches, force measuring accessories (clamps etc.), SAUTER software

→ 555

System Solutions Industry 4.0

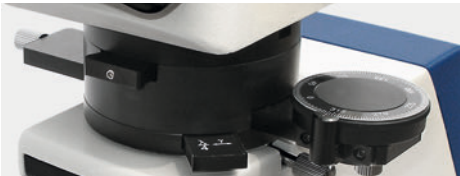
for all technical questions concerning the interlocking of the latest information and communication technology with our scales, load cells and measuring devices as well as questions about KERN software

→ 200

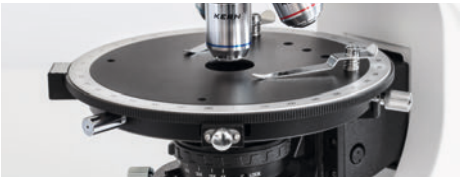
Calibration and Verification Service

for any questions concerning our calibration and verification service

→ 196



Bertrand lens, λ Slip, 360° rotatable analyser (removable)



Center-adjustable and turnable polarisation stage



"Swing-Out" condenser

Professional Line POL

The flexible and powerful polarising microscope for all professional applications with reflected and transmitted light

Features

- This device is a professional, fully-equipped polarising microscope, which uses the polarisation of light to analyse minerals, crystals and isotropic materials
- The KERN OKO 185 is a combi variant of LED incident illumination and LED transmitted illumination. A height-adjustable 0.9/0.13 Swing-out Abbe condenser which can be centred for complete Köhler illumination are part of the standard version
- A 360° revolving stage with 1° division, 6' fine division and locking function is integrated into all series as standard

- As standard all series are fitted with a complete polarising unit with scale, a Bertrand lens, a $\lambda + \frac{1}{4} \lambda$ Slip as well as a quartz wedge
- A large selection of accessories such as, for example, a mechanical stage attachment as well as further objectives for a long working distance and filter units are also available
- 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

- Mineralogy, texture observations, material testing, observation of crystals

Applications/Samples

- More complex samples with polarising properties

Technical data

- Infinity optical system
- Quintuple nosepiece
- Siedentopf 30° inclined
- Diopter adjustment: Both-sided
- Overall dimensions W×D×H 500×200×500 mm
- Net weight approx. 14,5 kg

STANDARD

Model	Standard configuration					Price excl. of VAT ex works €
	Tube	Eyepiece	Objective quality	Objectives	Illumination	
KERN						
OPO 185	Trinocular	HWF 10×/ø 20 mm	Infinity Plan	Non-stress 4×/10×/20×/40×/50×	5W LED (incident + transmitted)	5740,-

Model outfit		Model KERN	Order number	Price/piece excl. of VAT ex works €
		OPO 185		
Eyepieces (23,2 mm)	HWF 10×/20 mm	✓	OBB-A1591	95,–
	HWF 10×/20 mm (reticule 0,1 mm) (adjustable)	✓	OBB-A1592	130,–
Non-stress Infinity Plan objectives (transmitted)	4×/0,10 W.D. 12,1 mm	✓	OBB-A1294	115,–
	10×/0,25 W.D. 4,64 mm	✓	OBB-A1289	220,–
	20×/0,40 (spring-loaded) W.D. 2,41 mm	✓	OBB-A1290	290,–
	40×/0,66 (spring-loaded) W.D. 0,65 mm	✓	OBB-A1292	335,–
Non-stress Infinity Plan objectives (incident) for long working distance	5×/0,13 W.D. 16,04 mm	○	OBB-A1593	110,–
	10×/0,25 W.D. 18,48 mm	○	OBB-A1594	220,–
	20×/0,40 W.D. 8,35 mm	○	OBB-A1291	375,–
	Semi apochromatic 50×/0,75 W.D. 4,25 mm	✓	OBB-A1642	480,–
	100×/0,85 (dry) (spring-loaded) W.D. 3,00 mm	○	OBB-A1595	1260,–
Trinocular tube	• Siedentopf 30° inclined • Interpupillary distance 48 – 76 mm • Light distribution 100:0	✓		
Analyser unit with scale	360° rotatable, lockable	✓		
Bertrand lens	Insertable, center-adjustable	✓	OBB-A1121	330,–
λ + ¼ λ Slip	λ Slip and ¼ λ Slip (combination)	✓	OBB-A1316	155,–
Quartz wedge	I – IV Class	✓	OBB-A1321	260,–
Revolving round stage	360° rotatable, center-adjustable, division 1°, Vernier division 6'	✓		
Polarising attached mechanical stage	Polarising attached mechanical stage	○	OBB-A1337	295,–
Swing-out condenser	N.A. 0,9/0,13 swing-out achromatic condenser (aperture diaphragm)	✓	OBB-A1107	255,–
Polarising unit with scale (transmitted)	360° rotatable, lockable	✓		
Koehler illumination	5 W LED spare bulb (transmitted)	✓	OBB-A1589	90,–
Illumination polarising unit	5 W LED spare bulb (incident)			
Colour filters for transmitted illumination	Blue	✓	OBB-A1170	25,–
	Green	○	OBB-A1188	25,–
	Yellow	○	OBB-A1165	25,–
	Grey	○	OBB-A1183	25,–
C-Mount	1×	○	OBB-A1514	130,–
	0,75×	○	OBB-A1590	200,–
	0,5× (focus adjustable)	○	OBB-A1515	200,–

✓ = Included with delivery

○ = Option

The oldest Precision Balance Factory in Germany

KERN & SOHN GmbH

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