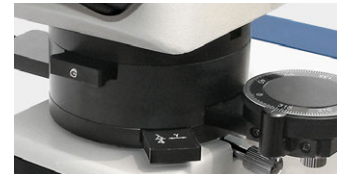


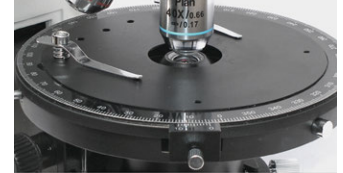
Polarising microscope KERN OPO-1



OPO



Bertrand lens,  $\lambda$  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 OPO 185 is a combi variant of reflected and transmitted LED illumination. A complete Koehler illumination is integrated as standard
- A height-adjustable 0,9/0,13 swing-out Abbe condenser which can be centred, for complete Koehler illumination is part of the standard equipment
- A 360° revolving stage with 1° division, 6' fine division and locking function is integrated as standard
- As standard KERN OPO 185 is 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: One-sided
- Overall dimensions W×D×H 500×200×500 mm
- Net weight approx. 14,5 kg

STANDARD



Model	Standard configuration				
	Tube	Eyepiece	Objective quality	Objectives	Illumination
KERN OPO 185	Trinocular	HWF 10×/∅ 20 mm	Infinity Plan	Non-stress 4×/10×/20×/40×/50×	5W LED (incident + transmitted)

## Polarising microscope KERN OPO-1

Modellausstattung		Modell KERN	Bestellnummer	
		OPO 185		
Eyepieces (30 mm)	HWF 10×/20 mm (adjustable)	✓	OBB-A1591	
	HWF 10×/20 mm (reticule 0,1 mm) (adjustable)	✓	OBB-A1592	
Non-stress Infinity Plan objectives	4×/0,10 W.D. 12,1 mm	✓	OBB-A1294	
	10×/0,25 W.D. 4,64 mm	✓	OBB-A1289	
	20×/0,40 (spring) W.D. 2,41 mm	✓	OBB-A1290	
	40×/0,66 (spring) W.D. 0,65 mm	✓	OBB-A1292	
Infinity Plan objectives (no cover glass) for long working distance	5×/0,13 W.D. 16,04 mm	○	OBB-A1593	
	10×/0,25 W.D. 18,48 mm	✓	OBB-A1594	
	20×/0,40 W.D. 8,35 mm	○	OBB-A1291	
	50×/0,70 (spring) W.D. 1,95 mm	○	OBB-A1295	
	100×/0,85 (dry) (spring) W.D. 3,00 mm	○	OBB-A1595	
Trinocular tube	<ul style="list-style-type: none"> <li>· Siedentopf 30° inclined</li> <li>· Interpupillary distance 48 – 76 mm</li> <li>· Light distribution 100:0</li> </ul>	✓		
Analyser unit with scale	360° rotatable, lockable	✓		
Bertrand lens	Built-in, center-adjustable	✓	OBB-A1121	
$\lambda + \frac{1}{4} \lambda$ Slip	$\lambda$ Slip and $\frac{1}{4} \lambda$ Slip (combination)	✓	OBB-A1316	
Quartz wedge	I – IV Class	✓	OBB-A1321	
Revolving round stage	360° rotatable, center-adjustable, division 1°, Vernier division 6'	✓		
Polarising attached mechanical stage	Polarising attached mechanical stage	○	OBB-A1337	
Swing-out Condenser	N.A. 0,9/0,13 swing-out achromatic condenser (aperture diaphragm)	✓	OBB-A1107	
Polarising unit with scale (transmitted)	360° rotatable, lockable	✓		
Koehler illumination	5W-LED spare bulb (transmitted)	✓	OBB-A1589	
Illumination Polarising unit	5W-LED spare bulb (incident)			
Colour filters for transmitted illumination	Blue	✓	OBB-A1170	
	Green	○	OBB-A1188	
	Yellow	○	OBB-A1165	
	Grey	○	OBB-A1183	
C-Mount	1×	○	OBB-A1514	
	0,75×	○	OBB-A1590	
	0,5× (focus adjustable)	○	OBB-A1515	

✓ = Included with delivery

○ = Option

## Pictograms

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

## Abbreviations

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

Your KERN specialist dealer: