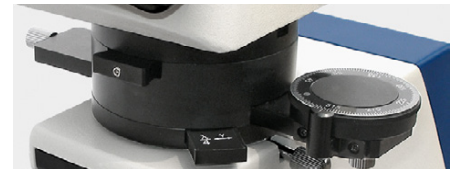
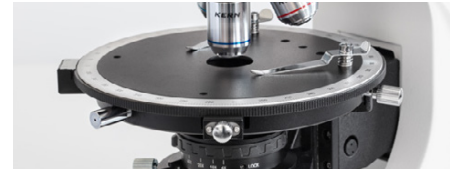


### Polarising Microscopes KERN OPO-1



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 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

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

Model outfit		Model KERN	Order number
		<b>OPO 185</b>	
<b>Eyepieces</b> (23,2 mm)	HWF 10×/20 mm	✓	OBB-A1591
	HWF 10×/20 mm (reticule 0,1 mm) (adjustable)	✓	OBB-A1592
<b>Non-stress Infinity Plan objectives</b> (transmitted)	4×/0,10 W.D. 12,1 mm	✓	OBB-A1294
	10×/0,25 W.D. 4,64 mm	✓	OBB-A1289
	20×/0,40 (spring-loaded) W.D. 2,41 mm	✓	OBB-A1290
	40×/0,66 (spring-loaded) W.D. 0,65 mm	✓	OBB-A1292
<b>Non-stress Infinity Plan objectives</b> (incident) 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
	Semi apochromatic 50×/0,75 W.D. 4,25 mm	✓	OBB-A1642
	100×/0,85 (dry) (spring-loaded) W.D. 3,00 mm	○	OBB-A1595
<b>Trinocular tube</b>	<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>	✓	
<b>Analyser unit with scale</b>	360° rotatable, lockable	✓	
<b>Bertrand lens</b>	Insertable, center-adjustable	✓	OBB-A1121
<b>λ + ¼ λ Slip</b>	λ Slip and ¼ λ Slip (combination)	✓	OBB-A1316
<b>Quartz wedge</b>	I – IV Class	✓	OBB-A1321
<b>Revolving round stage</b>	360° rotatable, center-adjustable, division 1°, Vernier division 6'	✓	
<b>Polarising attached mechanical stage</b>	Polarising attached mechanical stage	○	OBB-A1337
<b>Swing-out condenser</b>	N.A. 0,9/0,13 swing-out achromatic condenser (aperture diaphragm)	✓	OBB-A1107
<b>Polarising unit with scale</b> (transmitted)	360° rotatable, lockable	✓	
<b>Koehler illumination</b>	5 W LED spare bulb (transmitted)	✓	OBB-A1589
<b>Illumination polarising unit</b>	5 W LED spare bulb (incident)	✓	OBB-A1589
<b>Colour filters</b> for transmitted illumination	Blue	✓	OBB-A1170
	Green	○	OBB-A1188
	Yellow	○	OBB-A1165
	Grey	○	OBB-A1183
<b>C-Mount</b>	1×	○	OBB-A1514
	0,75×	○	OBB-A1590
	0,5× (focus adjustable)	○	OBB-A1515

✓ = Included with delivery

○ = Option

<b>360° rotatable microscope head</b>	<b>Fluorescence illumination for compound microscopes</b> With 100 W mercury lamp and filter	<b>Integrated scale</b> In the eyepiece	<b>Battery operation</b> Ready for battery operation. The battery type is specified for each device.
<b>Monocular Microscope</b> For the inspection with one eye	<b>Fluorescence illumination for compound microscopes</b> With 3 W LED illumination and filter	<b>SD card</b> For data storage	<b>Battery operation rechargeable</b> Prepared for a rechargeable battery operation
<b>Binocular Microscope</b> For the inspection with both eyes	<b>Phase contrast unit</b> For a higher contrast	<b>USB 2.0 interface</b> For data transmission	<b>Plug-in power supply</b> 230V/50Hz in standard version for EU. On request GB, AUS or USA version.
<b>Trinocular Microscope</b> For the inspection with both eyes and the additional option for the connection of a camera	<b>Darkfield condenser/unit</b> For a higher contrast due to indirect illumination	<b>USB 3.0 interface</b> For data transmission	<b>Integrated power supply unit</b> Integrated in microscope. 230V/50Hz standard EU. More standards e.g. GB, AUS or USA on request.
<b>Abbe Condenser</b> With high numerical aperture for the concentration and the focusing of light	<b>Polarising unit</b> To polarise the light	<b>WIFI data interface:</b> For transmitting of the picture to a mobile display device	<b>Package shipment</b> The time required to manufacture the product internally is shown in days in the pictogram.
<b>Halogen illumination</b> For pictures bright and rich in contrast	<b>Infinity system</b> Infinity corrected optical system	<b>HDMI digital camera</b> For direct transmitting of the picture to a display device	<b>Pallet shipment</b> The time required to manufacture the product internally is shown in days in the pictogram.
<b>LED illumination</b> Cold, energy-saving and especially long-life illumination	<b>Zoom magnification</b> For stereomicroscopes	<b>PC software</b> To transfer the measurements from the device to a PC.	
<b>Incident illumination</b> For non-transparent objects	<b>Auto-focus</b> For automatic control of the focus level	<b>Automatic temperature compensation</b> For measurements between 10 °C and 30 °C	
<b>Transmitting illumination</b> For transparent objects	<b>Parallel optical system</b> For stereomicroscopes, enables fatigue-proof working	<b>Protection against dust and water splashes IPxx:</b> The type of protection is shown in the pictogram cf. DIN EN 60529:2000-09, IEC 60529:1989+A1:1999+A2:2013	
<b>Fluorescence illumination</b> For stereomicroscopes			

## Abbreviations

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