



λ Slip and quartz wedge

**EDUCATIONAL LINE POL**

The robust polarising model for your training establishment or workshops

**Features**

- The KERN OPE-1 is a very easy to use, robust and stable polarisation microscope.
- It is suitable for all common routine applications in training establishments or workshops and produces impressive images.
- This microscope is equipped with a reticule wide field eyepiece, non-stress achromatic objectives, a Bertrand lens and an Abbe condenser as standard.
- A nosepiece for up to 4 objectives and a stage rotatable through 360° are provided as standard.
- The following optional accessories are available: A quartz wedge, additional eyepiece, objectives and a mechanical stage unit.
- One of the central features of this variable and simultaneously robust series of microscopes is the stable and precisely adjustable mechanism. This is underlined by the functional and ergonomic design.

**Technical data**

- Eyepieces: WF 10x18 mm
- Objectives: Non-stress 4x / 10x / 40x
- Overall dimensions  
WxDxH 242x170x379,3 mm
- Net weight approx. 6,5 kg

Please find detailed information in the following charts.

STANDARD































<b>Model</b>	Standard configuration		
<b>KERN</b>	Optical system	Tube	Illumination
<b>OPE 118</b>	Achromatic	Monocular	6V / 20W Halogen (transmitting)

Model outfit		Model KERN	Order number	
		OPE 118		
Eyepieces	WF 10x / Ø 18 mm (reticule 0,1mm) (non-adjustable)	●	OBB-A1349	
	WF 16x / Ø 13 mm	○	OBB-A1354	
Non-stress achromatic objectives	4x / 0,10	●	OBB-A1280	
	10x / 0,25	●	OBB-A1278	
	40x / 0,65 (spring)	●	OBB-A1281	
	20x / 0,40	○	OBB-A1279	
	60x / 0,80 (spring)	○	OBB-A1282	
Monocular tube	30° inclined, 360° rotatable	●	OBB-A1227	
Nosepiece	Quadplex	●		
Analyser unit	0 – 90°, can be moved out of the optical path for single polarising observe	●	OBB-A1118	
Bertrand lens	Can be moved out of the optical path	●	OBB-A1120	
$\lambda + \frac{1}{4} \lambda$ Slip	$\lambda$ Slip and $\frac{1}{4} \lambda$ Slip (combination)	●	OBB-A1316	
Quartz wedge	I – IV class	○	OBB-A1320	
Revolving round stage	360° rotatable, division 1°, Vernier division 6', lockable	●		
Polarising attached mechanical stage	Polarising attached mechanical stage	○	OBB-A1337	
Condenser	Abbe N.A. 1,25 (aperture diaphragm)	●	OBB-A1101	
Polarising unit	Can be moved out of the optical path	●	OBB-A1285	
Filter	Blue	●	OBB-A1173	
Illumination	6V / 20W Halogen (transmitting)	●	OBB-A1204	

● = Standard configuration

○ = Option

 360°	<b>360° rotatable microscope head</b>	 FL-HB0	<b>Fluorescence illumination for compound microscopes</b> With 100 W mercury lamp and filter	 AUTO ATC	<b>Automatic temperature compensation</b> For measurements between 10 °C and 30 °C
 MONO	<b>Monocular Microscope</b> For the inspection with one eye	 FL-LED	<b>Fluorescence illumination for compound microscopes</b> With 3 W LED illumination and filter	 IP	<b>Protection against dust and water splashes IPxx</b> The type of protection is shown by the pictogram.
 BINO	<b>Binocular Microscope</b> For the inspection with both eyes	 PH	<b>Phase contrast unit</b> For a higher contrast	 BATT	<b>Battery operation</b> Ready for battery operation. The battery type is specified for each device.
 TRINO	<b>Trinocular Microscope</b> For the inspection with both eyes and the additional option for the connection of a camera	 POLAR	<b>Polarising unit</b> To polarise the light	 ACCU	<b>Rechargeable battery pack</b> Rechargeable set.
 ABBE	<b>Abbe Condenser</b> With high numerical aperture for the concentration and the focusing of light	 INFINITY	<b>Infinity system</b> Infinity corrected optical system	 230 V	<b>Mains adapter</b> 230V/50Hz in standard version for EU. On request GB, AUS or USA version.
 HAL	<b>Halogen illumination</b> For pictures bright and rich in contrast	 ZOOM	<b>Zoom magnification</b> For stereomicroscopes	 230 V	<b>Power supply</b> Integrated in balance. 230V/50Hz standard EU. More standards e.g. GB, AUS or USA on request.
 LED	<b>LED illumination</b> Cold, energy saving and especially long-life illumination	 PARALLEL	<b>Parallel optical system</b> For stereomicroscopes, enables fatigue-proof working	 DAYS	<b>Package shipment</b> The time required to manufacture the product internally is shown in days in the pictogram.
 IL	<b>Incident illumination</b> For non-transparent objects	 SCALE	<b>Integrated scale</b> In the eyepiece	 3 YEARS WARRANTY	<b>Warranty</b> The warranty period is shown in the pictogram.
 TL	<b>Transmitting illumination</b> For transparent objects	 USB 2.0	<b>Integrated USB 2.0 digital camera</b> For direct transmitting of the picture to a PC		
 FL	<b>Fluorescence illumination</b> For stereomicroscopes	 USB 3.0	<b>Integrated 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>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 Kamera</b>	Single-Lens Reflex camera	<b>WF</b>	Wide Field (Field number up to Ø 22 mm for 10x eyepiece)
<b>LWD</b>	Long Working Distance	<b>SWF</b>	Super Wide Field (Field number at least Ø 23 mm for 10x eyepiece)		

## Your KERN specialist dealer: