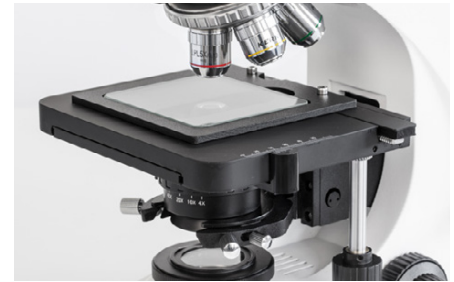


Metallurgical Microscopes KERN OKO-1



Stage OKO



Illumination unit

Professional Line MET

The fully-equipped reflected and transmitted light microscope for numerous applications in metallurgy

Features

- This device is a professional, versatile, metallurgical microscope, which is used in testing metals and analysing surfaces
- The KERN OKO 178 is a combi variant of LED incident illumination and LED transmitted illumination. A height-adjustable 1.25 Abbe condenser which can be centred as well as a field diaphragm for complete professional Köhler illumination are part of the standard version.
- An open, mechanical angle table is integrated as standard
- A simple polarising unit (analyser and polariser) is included with delivery
- A large selection of accessories, such as, for example, eyepieces and further objectives are available for longer working distances
- 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

- Metallurgy, material testing, quality assurance

Applications/Samples

- Opaque and thick samples, workpieces (surfaces, fold lines, coatings)

Technical data

- Infinity optical system
- Quintuple nosepiece
- Siedentopf 30° inclined/360° rotatable
- Diopter adjustment: Both-sided
- Overall dimensions W×D×H 550×200×460 mm
- Net weight basic configuration approx. 14,5 kg

STANDARD



Model

Standard configuration

	Tube	Eyepiece	Objective quality	Objectives	Illumination
KERN					
OKO 178	Trinocular	HWF 10×/ø 22 mm	Infinity Plan	5×/10×/20×/50×	5 W LED (incident + transmitted)

Model outfit		Model KERN	Order number
		OKO 178	
Eyepieces (30 mm)	HWF 10×/∅ 22 mm (adjustable)	✓	OBB-A1491
	HWF 10×/∅ 22 mm (reticule 0,1 mm) (adjustable)	✓	OBB-A1523
Infinity Plan Semi Apochromatic objectives for long working distance	5×/0,15 W.D. 21,0 mm	✓	OBB-A1619
	10×/0,3 W.D. 20,0 mm	✓	OBB-A1620
	20×/0,40 W.D. 15,0 mm	✓	OBB-A1621
	50×/0,75 W.D. 4,25 mm	✓	OBB-A1641
	100×/0,85 (dry) W.D. 3,00 mm	○	OBB-A1623
Infinity Plan objectives for long working distance	80×/0,80 (spring-loaded) W.D. 0,85 mm	○	OBB-A1530
Trinocular tube	<ul style="list-style-type: none"> • Siedentopf 30° inclined/360° rotatable • Interpupillary distance 48 - 76 mm • Light distribution 100:0 	✓	
Mechanical stage for transmitted illumination	<ul style="list-style-type: none"> • Stage size W×D 182×140 mm • Travel 77×52 mm • Coaxial coarse and fine focusing knobs 	✓	
Reflected illumination unit	Polarising unit (Incl. analyser, polariser and blue filter slide)	✓	
Condenser	Abbe N.A. 1,25 (aperture diaphragm)	✓	OBB-A1380
Koehler illumination	5 W LED spare bulb (transmitted)	✓	OBB-A1589
Illumination polarising unit	5 W LED spare bulb (incident)	✓	OBB-A1470
Polariser	For transmitted illumination	✓	OBB-A1470
Colour filters for transmitted illumination	Blue	✓	OBB-A1170
	Green	○	OBB-A1188
	Yellow	○	OBB-A1165
	Grey	○	OBB-A1183
	1×	○	OBB-A1514
C-Mount	0,75×	○	OBB-A1590
	0,5× (focus adjustable)	○	OBB-A1515

✓ = Included with delivery

○ = Option

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	Battery operation rechargeable Prepared for a rechargeable battery operation
Binocular Microscope For the inspection with both eyes	Phase contrast unit For a higher contrast	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	Darkfield condenser/unit For a higher contrast due to indirect illumination	USB 3.0 interface For data transmission	Integrated power supply unit Integrated in microscope. 230V/50Hz standard EU. More standards e.g. GB, AUS or USA on request.
Abbe Condenser With high numerical aperture for the concentration and the focusing of light	Polarising unit To polarise the light	WIFI data interface: For transmitting of the picture to a mobile display device	Package shipment The time required to manufacture the product internally is shown in days in the pictogram.
Halogen illumination For pictures bright and rich in contrast	Infinity system Infinity corrected optical system	HDMI digital camera For direct transmitting of the picture to a display device	Pallet shipment The time required to manufacture the product internally is shown in days in the pictogram.
LED illumination Cold, energy-saving and especially long-life illumination	Zoom magnification For stereomicroscopes	PC software To transfer the measurements from the device to a PC.	
Incident illumination For non-transparent objects	Auto-focus For automatic control of the focus level	Automatic temperature compensation For measurements between 10 °C and 30 °C	
Transmitting illumination For transparent objects	Parallel optical system For stereomicroscopes, enables fatigue-proof working	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			

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 \varnothing 23 mm for 10 \times 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 \varnothing 22 mm for 10 \times eyepiece)
N.A.	Numerical Aperture		