KERN

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

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360°	TRINO	ABBE	LED	POLAR	INFINITY	SCALE	230 V	1 DAY

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



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Model outfit		Model KERN	Order number	
		ОКО 178		
Eyepieces	HWF 10×/Ø 22 mm (adjustable)	✓	OBB-A1491	
(30 mm)	HWF 10×/Ø 22 mm (reticule 0,1 mm) (adjustable)	✓	OBB-A1523	
	5×/0,13 W.D. 16,04 mm	✓	OBB-A1525	
	10×/0,25 W.D. 18,48 mm	✓	OBB-A1526	
Infinity Plan objectives	20×/0,40 W.D. 8,35 mm	✓	OBB-A1527	
for long working distance	50×/0,70 (spring-loaded) W.D. 1,95 mm	✓	OBB-A1528	
uistance	80×/0,80 (spring-loaded) W.D. 0,85 mm	0	OBB-A1530	
	100×/0,85 (dry) W.D. 3,00 mm	0	OBB-A1531	
Trinocular tube	 Siedentopf 30° inclined/360° rotatable Interpupillary distance 48 – 76 mm Light distribution 100:0 	*		
Mechanical stage for transmitted illumination	 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)			
Illumination polarising unit	5 W LED spare bulb (incident)	✓	OBB-A1589	
Polariser	for transmitted illumination	✓	OBB-A1470	
	Blue	✓	OBB-A1170	
Colour filters	Green	0	OBB-A1188	
for transmitted illumination	Yellow	0	OBB-A1165	
	Grey	0	OBB-A1183	
0 M = 1	1×	0	OBB-A1514	
C-Mount	0,75×	0	OBB-A1590	
	0,5× (focus adjustable)	0	OBB-A1515	

 \checkmark = Included with delivery

O = Option

KERN OPTICS CATALOGUE 2021



360° rotatable Q microscope head



360°

Monocular Microscope For the inspection with one eye



Binocular Microscope For the inspection with both eyes

Trinocular Microscope



For the inspection with both eyes and the additional option for the connection of a camera



Abbe Condenser With high numerical aperture for the concentration and the focusing of light



Halogen illumination For pictures bright and rich in contrast



LED illumination Cold, energy-saving and especially long-life illumination



Incident illumination For non-transparent objects



Transmitting illumination For transparent objects



Fluorescence illumination For stereomicroscopes



Fluorescence illumination for compound microscopes





With 100W mercury lamp and filter



Fluorescence illumination for compound microscopes With 3 W LED illumination and filter



Phase contrast unit For a higher contrast



Darkfield condenser/unit For a higher contrast due to indirect illumination



Polarising unit To polarise the light



Infinity system Infinity corrected optical system

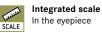


PARALLEL

Zoom magnification For stereomicroscopes



Parallel optical system For stereomicroscopes, enables fatigue-proof working



SD card For data storage



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USB 3.0

USB 2.0 digital camera For direct transmitting of the picture to a PC USB 2.0



1 DAY

Package shipment

Power supply

The time required to manufacture the product internally is shown in days in the pictogram

Abbreviations

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

Your KERN specialist dealer:





WLAN data interface For transmitting of the picture to a mobile display device

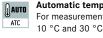
HDMI

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HDMI digital camera For direct transmitting of the picture to a display

o I
SOFTWARE
JOI THAILE

PC software To transfer the measurements from the device to a PC



Automatic temperature compesation For measurements between

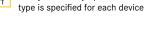


Protection against dust and water splashes IPxx

The type of protection is shown by the pictogram

BATT

Battery operation Ready for battery operation. The battery





Battery operation rechargeable Prepared for a rechargeable battery



Mains adapter 230V/50Hz in standard version for EU.

On request GB, AUS or USA version

Integrated in microscope. 230V/50Hz

-6 230 V

