



OLE 161



OLF 162

EDUCATIONAL LINE MET

The compact inverted metallurgical microscope for details with large workpieces

Features

- The inverted series – KERN OLE and KERN OLF – stand out through their design which is compact, stable and ergonomic
- The strong, continuously dimmable 3 W LED reflected illumination guarantees a permanent optimum illumination of the materials being tested
- A mechanical stage with additional plate (opening \varnothing 10 mm and \varnothing 20 mm) is included with delivery as standard. The coarse and fine focusing knob on both sides guarantees optimal adjustment and focusing
- Colour filters (blue, green and grey) are included with delivery

- A large selection of eyepieces, stage inserts and objectives for a larger working distance are available as accessories
- A protective dust cover, eye cups, as well as multi-lingual user instructions are included in the scope of delivery
- Please find detailed information in the following model outfit list

Scope of application

- Training, metallurgy, material testing, quality assurance

Applications/Samples

- Inverted opaque or translucent samples, workpieces (surfaces, fold lines, coatings), inverted viewing

Technical data

- Finite optical system (DIN)
- Quadplex nosepiece
- Tube 45° inclined
- Diopter adjustment: One-sided (for binocular models)
- Overall dimensions W×D×H 340×190×330 mm
- Net weight basic configuration approx. 7 kg

STANDARD					OPTION
MONO	BINO	LED	230 V	1 DAY	SCALE

Model	Standard configuration					
	Tube	Eyepiece	Objective quality	Objectives	Illumination	
KERN OLE 161	Monocular	WF 10×/ϕ 18 mm	Plan	10×/20×/40×	3 W LED (incident)	
OLF 162	Binocular	WF 10×/ϕ 18 mm	Plan		3 W LED (incident)	


















ONLY WHILE STOCKS LAST

Price reduction

Model outfit		Model KERN		Order number	
		OLE 161	OLF 162		
Eyepieces (23,2 mm)	WF 10×/∅ 18 mm	✓	✓	OBB-A1347	
	WF 12,5×/∅ 14 mm	○	○○	OBB-A1353	
	WF 16×/∅ 13 mm	○	○○	OBB-A1354	
	WF 5×/∅ 20 mm	○	○○	OBB-A1355	
	WF 10×/∅ 18 mm (reticule 0,1 mm) (non-adjustable)	○	○○	OBB-A1349	
Plan achromatic objectives	10×/0,25 W.D. 8,87 mm	✓	✓	OBB-A1246	
	20×/0,35 (spring) W.D. 1,6 mm	✓	✓	OBB-A1253	
	40×/0,65 W.D. 0,72 mm	✓	✓	OBB-A1261	
	100×/1,25 (spring) (oil) W.D. 0,69 mm	○	○	OBB-A1242	
	5×/0,10 W.D. 14,5 mm	○	○	OBB-A1265	
Plan achromatic objectives for long working distance	40×/0,60 W.D. 3,64 mm	○	○	OBB-A1262	
	50×/0,70 W.D. 3,01 mm	○	○	OBB-A1267	
	80×/0,80 (spring) W.D. 1,08 mm	○	○	OBB-A1272	
Monocular tube	45° inclined	✓		OBB-A1228	
Binocular tube	· Siedentopf 45° inclined · Diopter adjustment: One-sided		✓	OBB-A1128	
Mechanical stage	· Stage size W×D 180×180 mm · Travel 50×40 mm	✓	✓		
Extra stage plate	1 (opening ∅ 10 mm)	✓	✓	OBB-A1322	
	2 (opening ∅ 20 mm)	✓	✓	OBB-A1323	
	3 (opening ∅ 40 mm)	○	○	OBB-A1324	
Illumination	3 W LED illumination system (incident)	✓	✓		
Colour filters for transmitted illumination	Blue	✓	✓	OBB-A1174	
	Green	✓	✓	OBB-A1190	
	Gray	✓	✓	OBB-A1184	

✓ = Included with delivery

○ = Option

 360°	360° rotatable microscope head	 FL-LED	Fluorescence illumination for compound microscopes With 3 W LED illumination and filter	 WLAN	WLAN data interface: For transmitting of the picture to a mobile display device
 MONO	Monocular Microscope For the inspection with one eye	 PH	Phase contrast unit For a higher contrast	 HDMI	HDMI digital camera For direct transmitting of the picture to a display device
 BINO	Binocular Microscope For the inspection with both eyes	 DF	Darkfield condenser/unit For a higher contrast due to indirect illumination	 SOFTWARE	PC software To transfer the measurements from the device to a PC.
 TRINO	Trinocular Microscope For the inspection with both eyes and the additional option for the connection of a camera	 POLAR	Polarising unit To polarise the light	 AUTO ATC	Automatic temperature compensation For measurements between 10 °C and 30 °C
 ABBE	Abbe Condenser With high numerical aperture for the concentration and the focusing of light	 INFINITY	Infinity system Infinity corrected optical system	 IP	Protection against dust and water splashes IPxx The type of protection is shown by the pictogram.
 HAL	Halogen illumination For pictures bright and rich in contrast	 ZOOM	Zoom magnification For stereomicroscopes	 BATT	Battery operation Ready for battery operation. The battery type is specified for each device.
 LED	LED illumination Cold, energy saving and especially long-life illumination	 PARALLEL	Parallel optical system For stereomicroscopes, enables fatigue-proof working	 RECHARGE	Battery operation rechargeable Prepared for a rechargeable battery operation
 IL	Incident illumination For non-transparent objects	 SCALE	Integrated scale In the eyepiece	 230 V	Mains adapter 230V/50Hz in standard version for EU. On request GB, AUS or USA version.
 TL	Transmitting illumination For transparent objects	 SD	SD card For data storage	 230 V	Power supply Integrated in balance. 230V/50Hz standard EU. More standards e.g. GB, AUS or USA on request.
 FL	Fluorescence illumination For stereomicroscopes	 USB 2.0	USB 2.0 digital camera For direct transmitting of the picture to a PC	 1 DAY	Package shipment The time required to manufacture the product internally is shown in days in the pictogram.
 FL-HBO	Fluorescence illumination for compound microscopes With 100 W mercury lamp and filter	 USB 3.0	USB 3.0 digital camera For direct transmitting of the picture to a PC		

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 \varnothing 23 mm for 10 \times 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 Kamera	Single-Lens Reflex camera	WF	Wide Field (Field number up to \varnothing 22 mm for 10 \times eyepiece)

Your KERN specialist dealer: