# **MICROSCOPES & REFRACTOMETERS 2023**

REFRACTOMETERS

## Digital refractometer KERN ORL-B





Transport and storage case



Rear view, screw-on battery compartment cover

Digital refractive index measurement for laboratories and the industry for multi-application ► Laboratory refractometer

## Features

- The models in the KERN ORL range are accurate, universal and maintenance-free digital desktop refractometers
- Other key features are the extra-large measuring range and a high degree of accuracy.
- With their handy design, they are ideal for convenient and rapid everyday use
- The large, easy-to-read multi-function display with integrated temperature display supports the user to reliably determine the measurement.
- The integrated automatic temperature compensation (ATC), avoids the manual conversion of the measurement. This allows a quick and efficient usage of the instrument

- Rapid, user-friendly calibration of the refractometer is possible at any time using standard commercial distilled water.
- Mean value measurement (15 measurements)
- The follwoing accessory-parts are included:
  - Pipette
  - Storage box
  - USB cable
  - Power adapter
- Screwdriver

#### **Technical data**

- Measurement temperature: 0 °C 40 °C
- Overall dimensions W×D×H 180×100×55 mm
- Net weight approx. 365 g (without battery)
- Power supply: USB connection, as an alternative 1 × battery 3.7 V 3000 mA (not included with delivery)
- ATC (Automatic Temperature Compensation)
- Minimum sample volume: 0,3-0,4 ml
- Automatic energy management (AUTO-OFF after 3 Minutes)
- · Mean value measurement (15 measurements)

### Accessories

 Rechargeable Battery 3,7 V 3000 mA, KERN ORL-A2007

Also available with calibration certificate.

STANDARD	1 DAY			
Model	Scales	Measuring range	Accuracy	Division
KERN				
ORL 94BS	Brix Refractive index	0 – 94 % 1,3330 – 1,5290 nD	± 0,1 % ± 0,0002 nD	0,1 % 0,0001 nD

# MICROSCOPES & REFRACTOMETERS 2023

**KERN PICTOGRAMS** 



360° rotatable microscope head



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

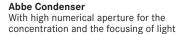


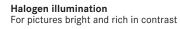
Ð

HAL

Ð

LED





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 100 W mercury lamp and filter



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



Phase contrast unit For a higher contrast



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



To polarise the light



ABBREVIATIONS

C-Mount

H(S)WF LWD

SLR camera

FPS

N.A.

SWF

W.D.

WF







Frames per second

Numerical Aperture

Working Distance

Long Working Distance

Single-Lens Reflex camera





 $\infty$ 

INFINITY

Q

ZOOM

Parallel optical system For stereomicroscopes, enables fatigue-proof working

Infinity corrected optical system



SD card

Infinity system

Auto-focus

Zoom magnification

For stereomicroscopes



For data storage



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



USB 3.0 digital camera For direct transmitting of the picture to a PC



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



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



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



Automatic temperature compesation For measurements between 10  $^\circ\mathrm{C}$  and 30  $^\circ\mathrm{C}$ 



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



Adapter for the connection of a camera to a trinocular microscope

Super Wide Field (Field number at least Ø 23 mm for 10× eyepiece)

Wide Field (Field number up to Ø 22 mm for 10× eyepiece)

High (Super) Wide Field (Eyepiece with high eye point for wearers of glasses)



Ready for battery operation. The battery type is specified for each device.



Battery operation rechargeable Prepared for a rechargeable battery

operation

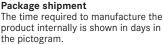


**Plug-in power supply** 230V/50Hz in standard version for EU. On request GB, AUS or USA version.



Integrated power supply unit Integrated in microscope. 230V/50Hz standard EU. More standards e.g. GB, AUS or USA on request.





Battery operation

