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, see page 110!





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

Datasheet\_ORL\_V1



#### **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



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



Zoom magnification For stereomicroscopes



**Auto-focus** 

For automatic control of the focus level



Parallel optical system

For stereomicroscopes, enables fatigue-proof working



Integrated scale

In the eyepiece



SD card





USB 2.0 digital camera



LWD

For direct transmitting of the picture to a PC



USB 3.0 digital camera

For direct transmitting of the picture to a PC



WLAN data interface

For transmitting of the picture to a mobile display device



HDMI digital camera

For direct transmitting of the picture to a display



PC software

To transfer the measurements from the device to a PC



Automatic temperature compesation

For measurements between 10 °C and 30 °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



**Battery operation** 

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.



Package shipment

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

## **Abbreviations**

Adapter for the connection of a C-Mount

Frames per second

camera to a trinocular microscope

SWF

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

N.A. Numerical Aperture

Working Distance W.D.

H(S)WF

**FPS** 

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

SLR camera Single-Lens Reflex camera

Long Working Distance

WF

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

### Your KERN specialist dealer: