



Transport and storage case



Rear view, screw-on battery compartment cover

## Digital measurement of refraction index for universal application

### Features

- NEW: Up to eight additional, individually selectable scales available, for more details see internet
- NEW: Free OXR-BASIC software for performing measurements and for saving and exporting measurement results, for more details see internet
- The KERN ORL 94BS is a accurate, universal and maintenance-free digital desktop refractometer
- 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 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
- A quick and user-friendly calibration of the refractometer is possible at any time using commercially available distilled water
- Mean value measurements possible
- Scope of delivery:
  - Pipette
  - Storage case
  - USB cable
  - Power adapter
  - Screwdriver
  - Operating instructions

### 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)

**Note:** Also available with calibration certificate



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

## Digital refractometer application set with predefined scales

ORL 94BS digital refractometer set with Brix and refractive index scales as well as other predefined scales for your specific application area

### Area of application: Alcohol

Model	Scales	Measuring range	Accuracy	Division
<b>KERN</b>				
<b>ORL 94AL</b>	Brix	0–94 %	±0,1 %	0,1%
	Refraktive index	1,3330–1,5290 nD	±0,0002 nD	0,0001 nD
	Percent by mass	0–72 %	±1 %	1%
	Volume percentage	0–80 %	±1 %	1%
	Plato	0–31 °P	±0,3 °P	0,1 °P
	Original gravity (specific weight)	1,000–1,130	±0,002	0,001
	Oechsle	0–150 °Oe	±2 °Oe	1 °Oe
	Oechsle France	0–230 °Oe	±2 °Oe	1 °Oe
	Volume percentage (Wine)	0–22 %	±0,2 %	0,1%
	KWM ( Babo)	0–25 °KWM	±0,2 °KWM	0,1 °KWM



### Area of application: Industry/Motor vehicles

Modell	Scales	Measuring range	Accuracy	Division
<b>KERN</b>				
<b>ORL 94IN</b>	Brix	0–94 %	±0,1%	0,1%
	Refraktive index	1,3330–1,5290 nD	±0,0002 nD	0,0001 nD
	Windshield washerfluid	(-60)–0 °C	±0,5 °C	0,1 °C
	Battery fluid	1,000–1,500 kg/l	±0,005 kg/l	0,001 kg/l
	Ethylene glycol (%)	0–100 %	±0,5 %	0,1%
	Ethylene glycol (°C)*	(-50)–0 °C	±0,5 °C	0,1 °C
	Propylene glycol (%)	0–100 %	±0,5 %	0,1%
	Propylene glycol (°C)*	(-60)–0 °C	±0,5 °C	0,1 °C

\*according to ASHRAE standard



### Area of application: Food

Modell	Scales	Measuring range	Accuracy	Division
<b>KERN</b>				
<b>ORL 94LM</b>	Brix	0–94 %	±0,1%	0,1%
	Refraktive index	1,3330–1,5290 nD	±0,0002 nD	0,0001 nD
	Fructose (fruit-sugar)	0–69 %	±0,2%	0,1%
	Glucose (Grape sugar)	0–60 %	±0,2%	0,1%
	Lactose (milk sugar)	0–17 %	±0,2%	0,1%
	Maltose (Malt sugar)	0–16 %	±0,2%	0,1%
	Dextran	0–11 %	±0,2%	0,1%
	Salt content (NaCl) %	0–28 %	±0,2%	0,1%
	Salt content (NaCl) ‰	0–280 ‰	±2 ‰	1 ‰
	Salt content (specific gravity)	1,000–1,220	±0,002	0,001

