

DIGITAL REFRACTOMETERS TYPE: HAND-HELD

Laboratory | Industry | Food Industry



PROFESSIONAL MEASURING

2025

KERN Pictograms

 360° rotatable microscope head	 Fluorescence illumination for compound microscopes With 100 W mercury lamp and filter	 Integrated scale In the eyepiece	 Battery operation Ready for battery operation. The battery type is specified for each device.
 Monocular Microscope For the inspection with one eye	 Fluorescence illumination for compound microscopes With 3 W LED illumination and filter	 SD card For data storage	 Rechargeable battery pack Rechargeable set
 Binocular Microscope For the inspection with both eyes	 Phase contrast unit For a higher contrast	 USB 2.0 interface For data transmission	 Plug-in power supply 230V/50Hz in standard version for EU. On request GB, AUS or USA version.
 Trinocular Microscope For the inspection with both eyes and the additional option for the connection of a camera	 Darkfield condenser/unit For a higher contrast due to indirect illumination	 USB 3.0 interface For data transmission	 Integrated power supply unit Integrated in microscope. 230V/50Hz standard EU. More standards e.g. GB, AUS or USA on request.
 Abbe Condenser With high numerical aperture for the concentration and the focusing of light	 Polarising unit To polarise the light	 WIFI data interface: For transmitting of the picture to a mobile display device	 Package shipment The time required to manufacture the product internally is shown in days in the pictogram.
 Halogen illumination For pictures bright and rich in contrast	 Infinity system Infinity corrected optical system	 HDMI digital camera For direct transmitting of the picture to a display device	 Pallet shipment The time required to manufacture the product internally is shown in days in the pictogram.
 LED illumination Cold, energy-saving and especially long-life illumination	 Zoom magnification For stereomicroscopes	 PC software To transfer the measurements from the device to a PC.	 Automatic temperature compensation For measurements between 10 °C and 30 °C
 Incident illumination For non-transparent objects	 Auto-focus For automatic control of the focus level	 Protection against dust and water splashes IPxx: The type of protection is shown in the pictogram of. DIN EN 60529:2000-09, IEC 60529:1989+A1:1999 +A2:2013	
 Transmitting illumination For transparent objects	 Parallel optical system For stereomicroscopes, enables fatigue-proof working		
 Fluorescence illumination For stereomicroscopes			

Abbreviations

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

KERN Models A – Z

OAB-L	108
OBE-12 · OBE-13	12
OBE-S	65
OBL-12 · OBL-13	14
OBL-14 · OBL-15	16
OBL-S · OBN-S	66
OBN-13 · OBN-15	18
OBN-14 <small>NEW</small>	20
OBS-1	8
OBT-1 · OBT-2 <small>NEW</small>	10
OCM-1	22
OCS-9	24
ODC-24	88
ODC-25 <small>NEW</small>	89
ODC-82 · ODC-83 · ODC-84	85
ODC-85 · ODC-86	86
ODC-87 · ODC-88 · ODC-89	87
OIV-2	62
OIV-3 · OIV-9 <small>NEW</small>	60
OIV-6	63
OKM-1	26
OKO-1	28
OLM-1	30
OPO-1	33
ORA	92-98
ORL-B	105
ORM	99-104
OSE-4 · OZL-9 · OZM-9	71
OSE-42	36
OSF-43	38
OXM-9	90
OZB-H	81
OZB-IR	83
OZB-M	74
OZB-UE	80
OZB-UP	79
OZG-4	56
OZL-44	40
OZL-45	46
OZL-45R	48
OZL-46	42
OZL-47	44
OZL-S	67
OZM-5	50
OZM-9	70
OZM-S · OZP-S	68
OZP-5	52
OZS-5	54

NEW New model

KERN Customer Consultants

With questions about our products and services, we will be happy to advise you:

UK, BE, IE, IS, LU, NL



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KERN Hotlines



Technical questions about our products?

You will find assistance here quickly: **+49 7433 9933 - ...**

Service-Hotline

for general technical questions about your KERN product

→ **199**

Optical Devices

for all technical questions concerning our microscopes, microscope cameras, refractometers, etc.

→ **777**

Laboratory and Analytical Balances

for all technical questions concerning our high quality precision balances, analytical balances (especially with electromagnetic force-compensated measuring systems, tuning fork and high application density)

→ **444**

SAUTER Measuring Instruments

for all technical questions concerning our SAUTER measuring instruments, test benches, force measuring accessories (clamps etc.), SAUTER software

→ **555**

System Solutions Industry 4.0

for all technical questions concerning the interlocking of the latest information and communication technology with our scales, load cells and measuring devices as well as questions about KERN software

→ **200**

Calibration and Verification Service

for any questions concerning our calibration and verification service

→ **196**



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 following accessory-parts are included:
 - Pipette
 - Storage box
 - USB cable
 - Power adapter
 - Screwdriver

Technical data

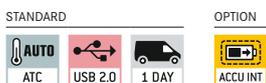
- Measurement temperature: 0 °C – 40 °C
- Overall dimensions W×D×H 180×100×55 mm
- Net weight approx. 365 g (without battery)
- Power supply: USB connection, as an alternative 1 × battery 3.7 V 3000 mA (not included with delivery)
- ATC (Automatic Temperature Compensation)
- Minimum sample volume: 0,3–0,4 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, € 65,-
- ORA-A1010 Calibration liquid

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Note: Also available with calibration certificate, see page 106



Model	Scales	Measuring range	Accuracy	Division	Price excl. of VAT ex works €
KERN					
ORL 94BS	Brix Refractive index	0 – 94 % 1,3330 – 1,5290 nD	± 0,1 % ± 0,0002 nD	0,1 % 0,0001 nD	890,-

The oldest Precision Balance Factory in Germany

KERN & SOHN GmbH

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DAkS Calibration Laboratory

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- Technical Glossary
- KERN Dealer Portal
- Practical Filter and Search Functions



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