

Abbe refractometers type: desktop



2022


PROFESSIONAL MEASURING

KERN Pictograms

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

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		

Why you should choose a KERN microscope now!

For 175 years, KERN & SOHN has been synonymous with high precision weighing and measuring technology. This claim is the driving force for the development of our microscope and refractometer ranges.

Thanks to consistent customer focus paired with smart ideas and the latest available technology we are proud to be suppliers of high-quality, durable top microscopes and refractometers, which help you to be as efficient as possible in your daily work.

When developing our microscopes we have concentrated on the very best optical quality and have used only high-quality glass and the latest technologies to achieve this. The high-quality Philips halogen and modern LED illumination produce razor-sharp images with high contrast and which will impress you with their brilliant true-colour display – you must have noticed this yourself.

Your advantages:

- all mechanical parts have been designed for a long service life
- special attention has been given to the ergonomics of our microscopes, as this allows the user to work for several hours in a comfortable position which does not cause fatigue
- our microscopes are fully-equipped and can be used immediately
- Highlight for 2022: die KERN camera software – you will be amazed at how user-friendly and intuitive it is, a high-quality tablet camera as well as a comprehensive range of calibration services for refractometers
- and much more...

Use our practical “Check list for microscopes and refractometers”, which may help you to quickly determine specifications for the future instrument. Together with our KERN product specialist you can choose the right product for you.

If there is no suitable product in the standard range, for example, then we will of course configure an individual microscope for you.

Our aim is to develop a market-driven product solution, so with our microscope and refractometer range, the saying holds true: good quality at a competitive price! This is what we stand for and work towards, every day!

With our current 2022 product range you can benefit from improved quality and a clear reduction in price, which we have been able to achieve through more efficient production methods and increased global sales of our microscopes and refractometers and of course we pass this straight on to you

Do you have any questions about our range of microscopes and refractometers?

Your KERN customer consultants are available at any time to help you further.

I hope that you enjoy working efficiently with our KERN Optics products.



Albert Sauter, Managing Director

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from 8:00 am to 5:00 pm



Also available with calibration certificate, see page 110!

Refractive index measurement for pharmacy, laboratories and industry

Features

- The KERN ORT refractometers are universal analog Abbe refractometers
- The handy and robust design allows the easy, efficient and sustainable use in everyday life
- The integrated scale allows the use in different applications and provides the best possible security to read the measurement results accurately
- The scope of delivery includes:
 - Calibration solution
 - Calibration block
 - Pipette
 - Small screwdriver
 - Cleaning tissue
 - Digital thermometer
- Accessories are available as options

Technical data

- Measurement temperature: 20 °C
- Overall dimensions W×D×H
180×90×240 mm
- Net weight approx. 1950 g

STANDARD



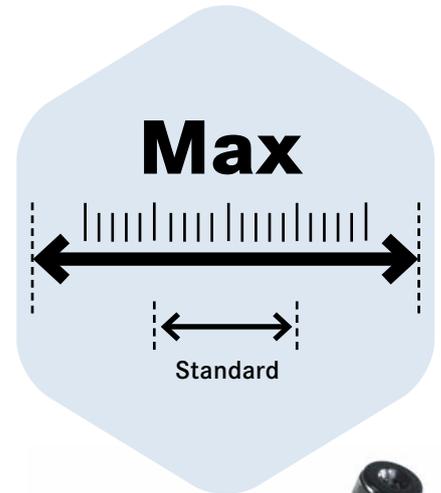
Scope of application: Industry/Pharmacy/Laboratory

The following model is a simple yet highly reliable Abbe refractometer with a digital thermometer. Liquid, solid and pasty samples can be evaluated. This refractometer is robust, accurate and easy to use. Optionally a solide aluminium case for transport and storage is available. It measures the refractive index (nD).

The main scope of applications is:

- Sugar industry: for example cane sugar
- Pharmacy
- Beverage industry
- Food industry
- Chemical industry
- Laboratories
- Training

Model	Scales	Measuring range	Accuracy	Division	Price excl. of VAT ex works €
KERN					
ORT 1RS	Brix Refractive index	0 - 95 % 1,3000 - 1,7000 nD	± 0,1 % ± 0,0002 nD	0,25 % 0,0005 nD	690,-



ORT 1RS

Accessory parts: Abbe refractometer – ORT

Model	Description	Price excl. of VAT ex works €
KERN		
ORA-A1102	Aluminium suitcase Dimension: 310×120×240 mm, weight: 1300 g	80,-
ORA-A2266	Digital thermometer (0 °C/50 °C) (Spare part)	60,-
ORA-A2267	Calibration block for ORT 1RS	40,-
ORA-A1107	Contact liquid – Alpha-Bromonaphthalene (Refractive index: 1,65 nD) Volume: approx. 2,5 ml	25,-
ORA-A3001	Contact liquid – Diiodomethane “Pro” (Refractive index: 1,79 nD) Volume: approx. 2 ml	35,-



Transport and storage case
ORA-A1102



Calibration block
ORA-A2267

Relationship overview – refractometer calibration (Abbe)

Model refractometer	Calibration value	Calibration liquid	Article number liquid	Calibration block	Article number calibration block
ORT 1RS	engraved on the block (nD value)	Alpha-Bromnaphthalene CAS 90-11-9	ORA-A1107	yes	ORA-A2267

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