

Handheld refractometer

Scales and models, VERSION 1.1





Our high quality devices differ mainly in the selectable scales, e.g. for the determination of the salt content, water content in honey, serum protein content, Oechsle, Brix and potential alcohol content as well as ethylene- and propylene glycol content. The majority of our handheld refractometers are equipped with an automatic temperature compensation. The measured values are therefore already corrected to 20 °C when taking a reading.

Product demonstration Produkt Demonstration



Discover our measuring instruments – we are just a click away!

We demonstrate our products for you on site or via video conference directly from our laboratory in Hamburg. This allows you live experience of our measuring devices.

Or watch the video about handheld refractometers on [YOU TUBE](#)

We will support you in selecting the appropriate measuring method and the suitable measuring device



- Perform live measurements with us and benefit from valuable expert tips on method development, sample temperature control, cleaning, maintenance and calibration.
- Learn more about our intuitive user guidance, our approach to data integrity, the audit trail or a three-level user administration.
- We would be happy to respond to all questions regarding 21 CFR Part 11, GAMP5 assessment, GMP, USP and other important standards and guidelines in your industry.
- We are also ready to provide you with information on instrument calibration with traceable calibration standards and our DQ, IQ, OQ, qualification and validation.

Videoconference - Easy, fast and efficient

- All you need is a computer and an internet connection. We will schedule a date and time for the meeting you will receive a link via email from us. You simply only have to click the link at the agreed time.
- After that the online session will start and you are connected with our trainer.
- Now you can enjoy our devices in real time via video streaming and get an insight into their use, functions and handling.
- Make an appointment quickly and easily with our technical service centre. Feel free to call us or use the contact form, our team in Hamburg is looking forward to meeting you.
- Service-Hotline: Phone 040 – 514 317-0, A.KRÜSS kontakt [form](#)



Handheld refractometer overview technical data: Scales, measurement ranges and measurement accuracy


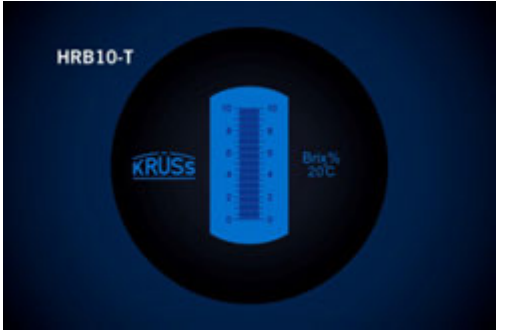

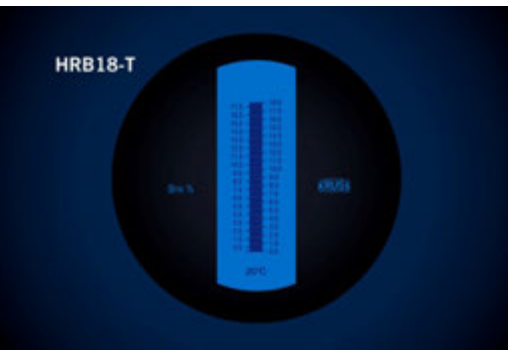

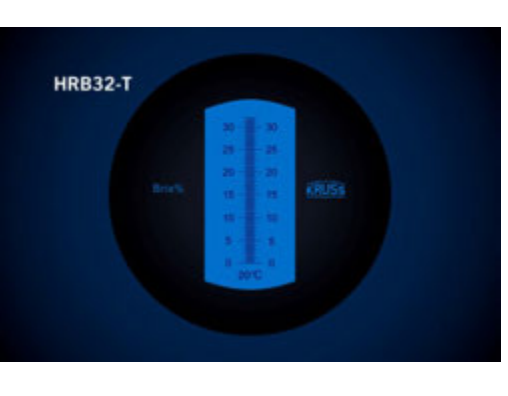

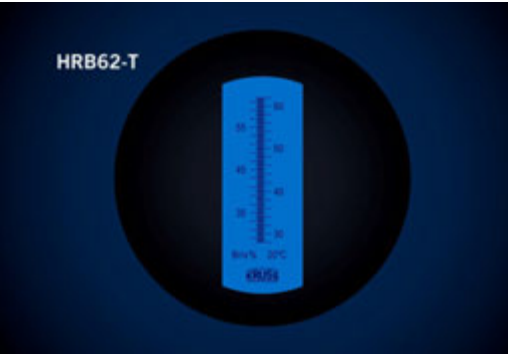
Order number/device model	Scales	Measurement Range	Measuring accuracy
HRB10-T	▪ Scale: Brix	▪ 0–10 %Brix	▪ ±0.1 %Brix
HRB18-T	▪ Brix	▪ 0–18 %Brix	▪ ±0.1 %Brix
HRB32-T	▪ Brix	▪ 0–32 %Brix	▪ ±0.2 %Brix
HRB62-T	▪ Brix	▪ 28–62 %Brix	▪ ±0.2 %Brix
HRB82-T	▪ Brix	▪ 45–82 %Brix	▪ ±0,2 %Brix
HRB92-T	▪ Brix	▪ 58–92 %Brix	▪ ±0.5 %Brix
	▪ Baumé	▪ 38–43 °Bé	▪ ±0.5 °Bé
	▪ Water content in honey	▪ 12–27 % Water content in honey	▪ ±0.5 % Water content in honey
HRB90	▪ Brix (with thermometer 6–36 °C)	▪ 0–90 %Brix	▪ ±0.2 %Brix
HRH30-T	▪ Water content in honey	▪ 12-30 % Water content in honey	▪ ±0.1 % Water content in honey
HRND	▪ Determination of refractive index (with thermometer 6–36 °C)	▪ 1.3330–1.5170	▪ ±0.0005
HRS10-T	▪ Salinity (NaCl)	▪ 0–10 %	▪ ±0.1 %
	▪ Specific gravity (D 20/20)	▪ 1.000-1.070	▪ ±0.001%
HRS28-T	▪ Salinity (NaCl)	▪ 0–28 %	▪ ±0.2 %
HRM18-T	▪ Determination of refractive	▪ 1.3330–1.3600	▪ ±0.0005
	▪ Serum protein	▪ 0–12 g/dl	▪ ±0.2 g/dl
	▪ Specific gravity of urine (UG)	▪ 1.000–1.050 UG	▪ ±0.002 UG
HRO32-T	▪ Brix	▪ 0–32 %Brix	▪ ±0.2 %Brix
	▪ Oechsle	▪ 30–130 °Oe	▪ ±1 °Oe
	▪ Potential alcohol content	▪ 4.4–19 % alcohol	▪ ±0.1 alcohol
HRKFZ-T	▪ Ethylene and propylene glycol content (antifreez)	▪ -50–0 °C	▪ ±5 °C
	▪ Density of Battery liquid	▪ 1.15–1.30 g/cm ³	▪ ±0.01 g/cm ³
HRKFZG-T	▪ Density of Battery liquid	▪ 1.10–1.40 g/cm ³	▪ ±0.01 g/cm ³
	▪ G11/12 & G13	▪ -50–0 °C	▪ ±1 °C
	▪ Windshield wiper water (ethanol & isopropanol)	▪ -40–0 °C	▪ ±5 °C

Accessories handheld refractometers

Order number	Item
HRK01	▪ Lid
HRK02	▪ Lid for handheld refractometer with metal hinge
RK02	▪ Calibration standard for HRB82-T, HRB92-T, HRH30-T. N-FK5 glass; fluorine-containing crown. The nD value (experience value) is 1.4875 ±0.0002 or 78.8%Brix ±0.2%Brix. 5 ml cinnamon oil included.
CI	▪ Cinnamon oil, nD 1.5902 at 25 °C


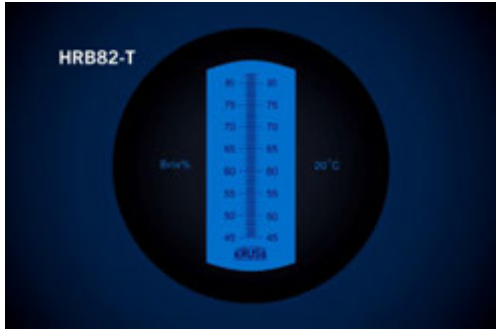

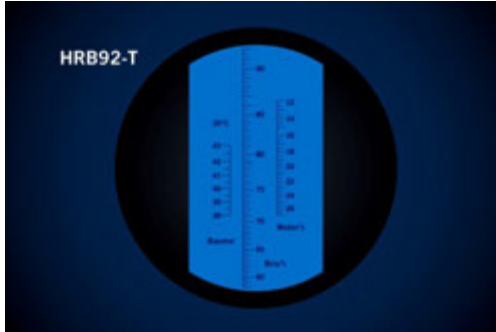

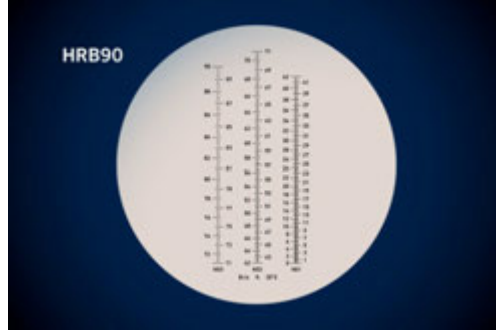


Handheld refractometer device details and scales

Order number	Handheld refractometer	
Order number: HRB10-T		
Scale: Brix		
Measurement Range: 0–10 %Brix Measurement accuracy: ±0.1 %Brix		Order number: HRB18-T
Scale: Brix		
Measurement Range: 0–18 %Brix Measurement accuracy: ±0.1 %Brix		Order number: HRB32-T
Scale: Brix		
Measurement Range: 0–32 %Brix Measurement accuracy: ±0.2 %Brix		Order number: HRB62-T
Scale: Brix		
Measurement Range: 28–62 %Brix Measurement accuracy: ±0.2 %Brix		




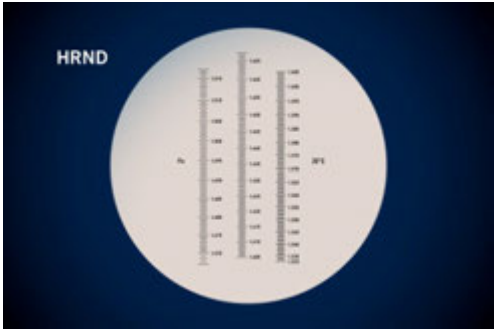




Handheld refractometer device details and scales




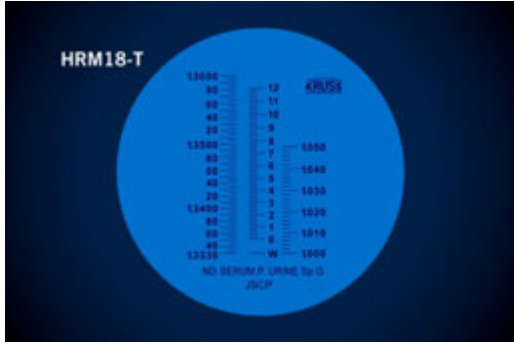

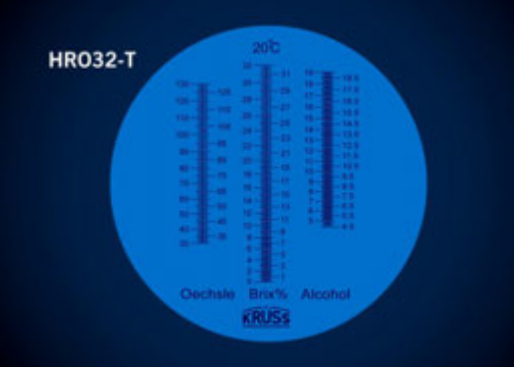
Order number	Handheld refractometer	
Order number: HRB82-T		
<p>Scale: Brix</p>		
<p>Measurement Range: 45–82 %Brix</p> <p>Measurement accuracy: ±0.2 %Brix</p>		
Order number: HRB92-T		
<p>Scale: Brix Baumé Water content in honey</p>		
<p>Measurement Range: 58–92 %Brix 38–43 °Bé 12–27 % Water content in honey</p> <p>Measurement accuracy: ±0.5%Brix ±0.5°Bé ±0.5% Water content in honey</p>		
Order number: HRB90		
<p>Scale: Brix (mit Thermometer 6–36 °C)</p>		
<p>Measurement Range: 0–90 %Brix</p> <p>Measurement accuracy: ±0.2 %Brix</p>		



Handheld refractometer device details and scales

Order number	Handheld refractometer	
Order number: HRH30-T		
<p>Scale: Water content in honey</p> <p>Measurement Range: 12-30 % Water content in honey</p> <p>Measurement accuracy: ±0.1 % Water content in honey</p>		
Order number: HRND		
<p>Scale: Refractive index (with thermometer 6–36 °C)</p> <p>Measurement Range: 1.3330-1.5170</p> <p>Measurement accuracy: ±0.0005</p>		
Order number: HRS10-T		
<p>Scale: Salinity (NaCl) Specific gravity (D 20/20)</p> <p>Measurement Range: 0-10 % 1.000-1.070</p> <p>Measurement accuracy: ±0.1 % ±0.001</p>		



Order number	Handheld refractometer	
Order number: HRS28-T		
<p>Scale: Salinity (NaCl)</p>		
<p>Measurement Range: 0-28 %</p> <p>Measurement accuracy: ±0.2 %</p>		
Order number: HRM18-T		
<p>Scale: Determination of refractive index Serum protein Specific gravity of urine (UG)</p>		
<p>Measurement Range: 1.3330-1.3600 0-12 g/dl 1.000-1.050 UG</p> <p>Measurement accuracy: ±0.0005 ±0.2 g/dl ±0.002 UG</p>		
Order number: HRO32-T		
<p>Scale: Brix Oechsle Potential alcohol content</p>		
<p>Measurement Range: 0-32 %Brix 30-130 °Oe 4.4-19 % alcohol</p> <p>Measurement accuracy: ±0.2 % Brix ±1 °Oe ±0.1 % alcohol</p>		



Handheld refractometer device details and scales

Order number	Handheld refractometer	
Order number: HRKFZ-T		
<p>Scale: Ethylene and propylene glycol content (antifreeze) Density of battery acid</p> <p>Measurement Range: -50-0 °C 1.15-1.30 g/cm³</p> <p>Measurement accuracy: ±5 °C ±0.01 g/cm³</p>		

Order number: HRKFZG-T		
<p>Scale: G11/12 & G13 Density of battery acid Windshield wiper water (ethanol & isopropanol)</p> <p>Measurement Range: -50-0 °C 1.10-1.40 g/cm³ -40-0 °C Measurement accuracy: ±1 °C ±0.01 g/cm³ ±5 °C</p>		

A.KRÜSS OPTRONIC – Cutting edge technology "Made in Germany"



A.KRÜSS Optronic headquarters in Hamburg



We are a leading manufacturer of high-precision laboratory and analysis instruments. For more than 200 years we have been developing and manufacturing innovative product solutions for the quality control of raw materials, semi-finished products and end products in Germany.

As part of the quality assurance we are committed to, our measurement devices provide important key figures with which product quality and product safety can be monitored and ensured.

Our demands on quality and precision are high and the requirements of our customers are always the top priority. Customers who decide to buy one of our devices do not only receive a quality measurement device, they also gain access to professional services and comprehensive support. Together with our certified service partners we offer customer service directly on site in over 130 countries around the globe.

Feel free to take a look at our website to find out more (conveniently scan the QR code shown).

A.KRÜSS Optronic GmbH
Alsterdorfer Straße 276–278
22297 Hamburg | Germany

Tel. +49 40 514317-0

Fax +49 40 514317-60

E-Mail info@kruess.com

Web www.kruess.com

