

accurate

## Reichert Analytical Instruments

reliable



## Hand-Held Refractometers

affordable

Imagine the perfect refractometer for you.

For more information, please contact us:

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Reichert offers several styles of hand-held refractometers - from ultra-precise to ultra-rugged, all are extremely versatile. Whatever your application, you can choose from a full line of instruments to meet your needs.



For more than 50 years, Reichert has been the leader in developing technologies to improve your measuring capability. Today we offer one of the most complete lines of hand-held refractometers available, so we are sure to have a model that is right for you, whatever your need.

Look over the instruments in this brochure for starters.

Then look to Reichert for help with your measurement applications.

We are happy to provide the service and support you deserve to find the instrument that is perfect for you.

## Digital Hand-Held Refractometer

### AR200 Digital Hand-Held Refractometer

Reichert's AR200 Digital Hand-held Refractometer gives you lab accuracy (0.1 Brix, 0.0001 nD) with a hand-held unit: twice the accuracy, twice the range, and at half the cost of other units.

twice the accuracy, twice the range, and at half the cost of other units.

And it's easy to use.

The state-of-the-

art AR200 digital

hand-held measures

refractive index,

% Solids as Brix, or

concentration over a broad

range: 1.3300-1.5600 nD

(0 to 100% Brix) with exacting

accuracy to +/-0.0001 nD (0.1%

Brix). Computer interface ability,

custom scale programming, and

automatic temperature compensation

make the AR200 the instrument of choice

to meet all your testing requirements.

#### Key Features

- Wide reading range: 1.3300 to 1.5600 refractive index and 0-100% Brix, all in one portable, lightweight, instrument
- Exacting accuracy to +/-0.0001nD or +/-0.1% Brix (default scale) or solids in custom scales
- Up to 3 custom scales may be programmed such as those found in our TS Meter or Salinity Meter
- Software includes single or multi-point calibration, 4 reading modes and adjustable contrast control
- IR Communication Docking Station available for stored data retrieval and programming of up to three user-defined channels
- Sealed housing for maximum environmental protection and chemical resistance



### AR200 Digital Hand-Held Refractometer

Model	AR200
Catalog No.	13950000
Reading Range	1.3300 to 1.5600 Refractive Index Full Brix Scale Per ICUMSA
Scales	Refractive Index, Brix, Up to 3 User Definable
Precision	±0.0001 Refractive Index, ±0.1 Brix
Calibration	Up to 5 User Definable Points Available
Prism Assembly	Glass Prism Sealed with Epoxy to 416 Grade Stainless Steel Sample Well
User Interface	Simple, Effective 3-Button Operation
I/O	IR Communications Port
Warranty	2 Years
Power	4 - AAA Alkaline Batteries Included
Battery Life	3000+ Readings with Auto-Off Sleep Mode
Dimensions	7" L x 3.75" W x 1.37" H (18x9x3.5 cm)
Accessories	13951000 - IR Communications Package (Docking Station and Software) 13952000 - AR200 with IR Communications Package
Additional Features	225 Place Electronic Reading Log Current Calibration Log

# Automotive Refractometers

## Reichert Duo-Chek® Engine Coolant/Battery Tester

The Reichert Duo-Chek® accurately measures all engine coolants including automotive, heavy-duty and environmentally-safe coolants. It enables you to quickly and accurately determine freeze protection of engine coolants and battery charge level. Duo-Chek's automatic temperature compensation provides immediate, accurate, direct readings with only a few drops of sample. Plus, it is portable, waterproof and rugged with no batteries or power cord.

### Key Features

- Automatic temperature compensation provides correct results no matter what the environment
- Accuracy to within 1°F
- Waterproof design eliminates condensation on the optics
- Bright, easy-to-read scale
- Rugged design meant to withstand years of use
- No messy cleanup
- Check engine coolant and battery charge with one instrument



## Brake-Chek® Brake Fluid Tester

The Reichert Brake-Chek® Brake Fluid Tester is a precision optical instrument that is an easy-to-use, accurate, cost-effective tool for determining boiling point and water content of DOT3 and DOT4 brake fluids. With just a couple drops of fluid placed on the sample window, the instrument provides an instant reading. The Brake-Chek is portable with no power cords.

### Key Features

- Quick and easy to use
- Temperature compensated to work in any environment
- Requires only one or two drops of fluid from the wheel cylinder or master cylinder
- Easy-to-read scale shows boiling point and % water content
- 10x focusable eyepiece for easy viewing
- No messy cleanup
- The test requires no heating of the sample, thus no dangerous chemicals are inhaled by the operator

## Duo-Chek® Engine Coolant & Battery Tester

Model	DC 70	DC 60
Catalog No.	137584LO	137564LO
Specific Gravity Scale Division	1.100 -1.400 0.01	1.100 -1.400 0.01
Antifreeze Protection		
Ethylene Glycol	+32° to -60°F	0° to -48°C
Propylene Glycol	+32° to -60°F	0° to -48°C
Scale Division	5°F	3°C
Coolant Concentration Scale		
Ethylene Glycol	0-70%	0-70%
Propylene Glycol	0-63%	0-61%
Refractive Index Range	1.3330 -1.4048	1.3330 -1.4048
Calibration Liquid	Distilled Water	Distilled Water
<sup>1</sup> Accuracy	±1.0°F	±0.55°C
Application	Check engine coolant and battery condition	

<sup>1</sup> By following ASTM Standard Practice D4542



## Brake-Chek® Brake Fluid Tester

Model	BC3	BC4
Catalog No.	13759600	13759500
Description	DOT3 Brake Fluid Tester - measures boiling point and water content of DOT3 Brake Fluids.	DOT4 Brake Fluid Tester - measures boiling point and water content of DOT4 Brake Fluids.

# Food and Beverage Refractometers

## Phoenix Series BRIX Refractometers

The Reichert Phoenix Series BRIX hand-held refractometers (BRIX30, BRIX50, BRIX90) are the industry standard for measuring the Brix scale or % solids (as sucrose). Our Brix refractometers offer quick results and use automatic temperature compensation to provide the most accurate readings possible. From fruit juice and concentrate quality analysis to beverage mix ratios to chemical processing research and development, Reichert BRIX refractometers offer a quick and easy solution.

### Key Features

- Automatic temperature compensation provides accurate readings without correction tables or temperature measurement
- Large, easy-to-read scale
- Portable; no batteries or power cord required
- Rugged, waterproof, drop-tested and impact-resistant
- Completely sealed unit prevents condensation AND dirt on lenses
- Ideal for use in a laboratory or in the field



Phoenix Series BRIX Refractometers

Model	BRIX 30	BRIX 50	BRIX 90
Catalog No.	137530LO	137531LO	137533LO
Range % Solids as Sucrose (Brix)	0-30%	0-50%	50-90%
Scale Divisions	0.2 and 0.5	0.25	0.2
Refractive Index	1.3330-1.3811	1.3330-1.4200	1.4201-1.5177
Chassis	Rugged, Sealed Water Proof Zenoy Polymer Body		
Optics	All glass		
Weight	5.7 oz. (162.4 grams)		
Size	9.2" L x 1.6" W x 1.6" H (235mm x 38mm x 38mm)		

## HP Series BRIX Refractometers

The Reichert HP Series of high precision Brix hand-held refractometers (0-15, 0-35, 35-65, and 65-90 Brix) are designed specifically for the food and beverage industries. They are ideal for measuring sugar concentrations in raw materials and end products. They may also be used in numerous other industries where concentration measurements are desired. The HP Series has an exceptional optical design that improves image resolution and provides high contrast for easy viewing of scales.

### Key Features

- Automatic temperature compensation provides accurate readings without correction tables or temperature measurement
- Large, easy-to-read scale and depth of field
- Portable - no batteries or power cord required
- 10X Focusable Eyepiece
- Glare Free, anti-reflection coated all-glass optics

HP Series BRIX Refractometers

Model	15HP	35HP	65HP	90HP
Catalog No.	13851500	13853500	13856500	13859000
Range % Solids as Sucrose (Brix)	0-15	0-35	35-65	65-90
Scale Divisions	0.1	0.2	0.2	0.2
Refractive Index Range	1.3330 - 1.3557	1.3330 - 1.3903	1.3903 - 1.4535	1.4535 - 1.5177
Accessories	Include durable plastic carrying case, sample application pipettes, calibration adjustment wrench			
Weight	8.3 oz. (234.9 grams)			
Size	8.2" L x 1.9" W x 1.8" H (205mm x 46mm x 44mm)			



## Food and Beverage Refractometers (continued)

### Goldberg Series Brix and Salinity Testers

The Goldberg Series hand-held refractometers provide accuracy comparable to most laboratory Abbe refractometers.

- % Solids (Brix) better than 0.1%

- Parts per thousand salinity to better than 1 ppt

Automatic temperature compensation provides accurate, reproducible results instantly using an hermetically sealed, liquid-filled prism that changes index with temperature instantly.

#### Key Features

- Salinity Tester
  - Rapid, reliable refractive index and salinity readings of total dissolved solids in aqueous solutions on a 0 -160 ppt scale.
  - Can be used to check and maintain stock solutions and dilutions.
  - In the food industry, it is especially effective in the preparation of frozen vegetables, fruits, seafood and ocean by-products.
- Brix Tester
  - measures % Solids (Brix) in water-soluble solutions on a 0-30° scale.
  - ideal for the production of soft drinks, fruit juices, wine and beer, it is also used for quality control in beverage dispensing equipment and vending machines.
  - Additional applications include checking dissolved sugar levels to determine fruit ripeness.
  - Assures harvesting is done at the optimum time.

### OE 200 Grape Tester

Reichert's OE 200 refractometer for viticulture provides quick, accurate readings of dissolved sucrose (Brix), grape density (Oe°), and grape sugar content (KI°). It is ideal for testing grapes for the wine-making industry, as well as citrus fruits, fruit juices, soft drinks, melons and maple sap. Using the OE 200 to measure sugar levels eliminates the guesswork involved at harvest time and helps maximize profits.

#### Key Features

- Scales include 0-200 Oechsle (Oe°), 0-45 Brix (% sucrose), and 0-40 Klosterneuburger (KI°)
- Automatic temperature compensation provides accurate readings without correction tables or temperature measurement
- Portable for use in the field, vineyard or lab
- Rugged, impact resistant body and sample cover
- Large, easy-to-read scales
- Waterproof



### Goldberg Series Hand-Held Refractometers

Model	Salinity Tester	Brix Tester
Catalog No.	13104190	13104230
Range	0-160 ppt Salinity, 1.3330 to 1.3730 nD	0 - 30% Brix
Scale Division	2ppt, 0.0002nD	0.1%
Accuracy	±0.3 ppt <sup>1</sup>	0.1%
Refractive Index	1.3330 - 1.3730	1.3330 - 1.3811
Calibration Liquid	Distilled Water	Distilled Water
Accessories	13104060 Illuminated Table Stand, 110V 13104080 Illuminated Table Stand, 220V 13104050 Micro-Sample Cover	

<sup>1</sup> By following ASTM Standard Practice D4542

#### Available Accessories for Goldberg Series:

- Illuminated table stand
- Micro-sample cover



### Phoenix Series OE 200 Grape Tester

Model	OE 200	
Catalog No.	137528LO	
Range	Oe°	0-200
	Brix	0-45
	KI°	0-40
Scale Divisions	Oe°	2 and 5
	Brix	0.5
	KI°	0.5
Refractive Index Range	1.3330 - 1.4100	
Calibration Liquid	Distilled Water	

# Industrial Fluid Testers

## IFT 10HP/IFT 40 Refractometers



Reichert's Industrial Fluid Testers are hand-held refractometers designed to quickly determine ratio or concentration of water-soluble industrial fluids or lubricants.

The IFT 10 HP is ideal for synthetic lubricants, low concentration cutting fluids and other water soluble lubricants.

The IFT 40 is designed for cutting fluids, water soluble lubricants, fire-fighting foam and any water-soluble fluid. Both instruments are feature packed with a rugged, chemical resistant housing to stand up to the demands of the field.

## Key Features

- Automatic temperature compensation provides accurate readings without correction tables or temperature measurement
- Large, easy-to-read scales and depth of field
- Portable - no batteries or power cord required
- Rugged, chemical-resistant housing - a true field instrument
- 10x focusable eyepiece for improved image quality

## IFT 10HP/IFT 40 Industrial Fluid Testers

Model	IFT 10HP	IFT 40
Catalog No.	13851000	13754000
Range	0-10	0-30
Scale Divisions	0.2	0.5
Refractive Index Range	1.3330-1.3478	1.3330-1.3860
Calibration Liquid	Distilled Water	Distilled Water

reliable



affordable

# More from Reichert

As a leader in refractometry, Reichert also offers a full line of bench-top refractometers to meet most any need. From food and beverage to chemical and industrial applications, there is a Reichert refractometer for accurate, fast and easy testing.

## Reichert Analytical Instruments



### Clinical and Diagnostic Instruments

Imagine the perfect refractometer for you.

## Reichert Analytical Instruments



### Bench-Top Refractometers

Imagine the perfect refractometer for you.

*The brochures shown above are also available. To receive your copy, just call us at 281-496-0900.*

\*The precision and accuracy of measurements are largely dependent upon operator skill, laboratory equipment, temperature control, the accuracy of calibration standards, chemical stability of sample, and the physical characteristics of the sample. A product demonstration is suggested to validate the true precision and accuracy of laboratory equipment for specific samples. Due to a policy of continuous development, we reserve the right to change specifications without notice.



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