

Handheld Brix Refractometer 0-32% with ATC

Operating Manual

Laboratory Equipment

Intended use

An optical handheld refractometer for measuring sugar content (Brix) of liquids such as fruit juice, wort, must, honey dilutions and syrups.

Intended users

Food producers, home brewers, growers, educators and laboratory staff.

Read this manual completely before first use and keep it with the product. This document provides general operating, care and safety guidance. Where the product is supplied with manufacturer labeling or instructions, those take precedence. For questions, a replacement copy, or a digital copy of this manual, email sales@scimedstore.com.

1. Safety

Safety warnings and cautions

- Do not look at the sun through the eyepiece.
- Do not use with corrosive or strong solvent samples that may damage the prism.
- Handle the prism carefully; avoid scratches.
- Do not immerse the refractometer in water.
- Wash hands after handling food or chemical samples as required.

2. Package contents

- Refractometer
- Plastic case
- Cleaning cloth
- Screwdriver
- Pipettes
- Instructions

Check contents on receipt. Report missing or damaged items to sales@scimedstore.com within 48 hours of delivery.

3. Specifications

Brix range	0-32%
Accuracy	±0.2%
Resolution	0.2%
Automatic temperature compensation	10-30 °C (50-86 °F)
Calibration	Zero-point with distilled water using screwdriver
Power	None (optical)

4. Unpacking and setup

- 1 Allow the refractometer and sample to reach room temperature.
- 2 Open the daylight plate and clean the prism.
- 3 Place 2-3 drops of distilled water on the prism and close the plate.
- 4 Look through the eyepiece toward a light source and focus the eyepiece.
- 5 If the boundary line is not at zero, turn the calibration screw until it is.
- 6 Wipe the prism dry.

5. Operation

Taking a reading

- 1 Place 2-3 drops of sample on the prism with a pipette.
- 2 Close the daylight plate so the sample spreads evenly without bubbles.
- 3 Hold the refractometer toward a bright light.
- 4 Read the value where the blue/white boundary crosses the scale.
- 5 Record the result.
- 6 Wipe the prism clean before the next sample.

6. Cleaning and disinfection

- Wipe the prism and daylight plate with a soft damp cloth after each sample.
- Dry with the cleaning cloth.
- Do not use abrasives on the prism.
- Do not rinse the body under running water.

7. Maintenance and storage

- Store clean and dry in the case.
- Check zero with distilled water regularly.
- Avoid dropping the instrument.

8. Troubleshooting

Problem	Likely cause	What to do
Blurry scale	Eyepiece not focused	Turn the eyepiece focus ring
Boundary line unclear	Too little sample or bubbles	Add sample and close the plate evenly
Reading off zero with water	Calibration drift	Recalibrate with distilled water
Reading wrong for alcoholic samples	Alcohol affects readings	Use for pre-fermentation samples or apply a correction

9. Disposal

- Dispose of samples per normal waste rules.
- Recycle the instrument as mixed metal/glass per local rules.

10. Warranty and support

Products are covered by SciMed's standard warranty (12 months from purchase unless a different period is stated on your invoice). Warranty terms: scimedstore.com/pages/warranty.

Support, spare parts and additional copies of this manual: sales@scimedstore.com. Please include your order number and a photo of the product or issue.

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