

Hand-Held Refractometers



1. Features(MASTER-53α)

Automatic Sample Distribution (ASD)

New prism housing design allows for sample to cover the prism without having to lift the day-light plate! This design will allow for fast & easy measurements.



Optional: Daylight plate for small volume samplings (RE-2311-58M)

Well-balanced design

Smooth grip

With an emphasis on safety and hygiene, the conventional rubber grip was replaced.

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2. Measuring Method



- 1) Apply 2-3 drops onto the prism surface.
- 2) Close the daylight plate.
- 3) Look through the eyepiece. Read the boundary line where the blue and the white color meet. This is the Brix(%)

3. Main specifications(MASTER-53α)

Scale range	Brix 0.0 to 53.0% (Automatic Temperature Compensation)
Minimum Scale	Brix 0.2%
Measurement Accuracy	Brix \pm 0.2% (at 20°C)
Sample Volume	10 μ l or more Optional : Daylight plate for small volume samplings (RE-2311-58M)
International Protection Class	IP65 Dust-tight and Protected against water jets. (except eye piece)
Size & Weight	3.2×3.4×16.8cm 130g

4. List of Hand-Held Refractometers

• List of Brix Scales

Model	Brix Scale range	Features
MASTER-53α	0.0 to 53.0%	Automatic Temperature Compensation Water Resistant IP65 (except eye piece)
MASTER-20α	0.0 to 20.0%	Automatic Temperature Compensation Water Resistant IP65 (except eye piece)
MASTER-53T	0.0 to 53.0%	Automatic Temperature Compensation
MASTER-20T	0.0 to 20.0%	Automatic Temperature Compensation
MASTER-53M	0.0 to 53.0%	
MASTER-20M	0.0 to 20.0%	
MASTER-50H	0.0 to 50.0%	Automatic Temperature Compensation Water Resistant IP65 (except eye piece) Extreme heat and acid resistant models
MASTER-80H	30.0 to 80.0%	Automatic Temperature Compensation Water Resistant IP65 (except eye piece) Extreme heat and acid resistant models
MASTER-93H	45.0 to 93.0%	Automatic Temperature Compensation Water Resistant IP65 (except eye piece) Extreme heat and acid resistant models
MASTER-100H	60.0 to 100.0%	Automatic Temperature Compensation Water Resistant IP65 (except eye piece) Extreme heat and acid resistant models

*The Master-53α, T, H series and ATC-20 are equipped with Automatic Temperature Compensation (ATC), which ensures accurate measurements despite differences in the ambient or sample's temperature.

*The MASTER-50H, MASTER-80H, MASTER-93H, MASTER-100H are suitable for samples that are at a high-temperature or samples that contain acidic or corrosive ingredients.

• List of Special Scales

Model	Scales Available	Scale range
HHR-2N	Honey moisture	12.0 to 30.0%

5. Maintenance

- After measuring, use a lint-free tissue to wipe the sample off of the prism surface. If the sample contains oils or fat, use isopropyl alcohol and water to clean the prism surface.
- When not in use, keep the refractometer in the storage case at room temperature (20°C). Avoid storing the unit in direct sunlight or in a moist environment and do not subject the unit to strong shocks or vibrations. The ambient temperature at which you can safely store the units is between 0 and 40°C.

