

Refractometer Polarimeter

Measurement Result Display

Automatically calculates and displays Refractive Index, Purity (from Angle of Rotation), International Sugar Scale, Specific Rotation and Concentration. Temperature is displayed constantly.

2 in 1

Refractive index and angle of rotation are measured simultaneously. Only 3mL of sample is required.



Evaluation Indicator (RePo-1 only)

An indicator light alerts the user if a measurement value is within a range set by the user.

Portable Refracto-Polarimeter **RePo series**

Measurement Method



Fill the sample stage up to the fill line (approx. 3mL)



Press START.



Measurement is displayed.

Common Specifications

Measurement Scale	AR, Brix, Temp	Measurement Time	12 seconds
Measurement Readings	AR, Brix, Temp, Brix (%): with ATC	Ambient Temperature	15 to 40°C
Measurement Range	AR : -5.00 to +5.00° ^{*1} Brix : 0.0 to 85.0% Temp : 15.0 to 40.0°C	Storage Environment Temperature	0 to 65°C
Display Range	AR : -5.99 to +5.99° Brix : -2.0 to 86.6% Temp : 14.0 to 41.0°C	Temperature Compensation Range	Brix : 15 to 40°C
Resolution	AR : 0.01° Brix : 0.1% Temp : 0.1°C	Sample Volume	3mL
Measurement Accuracy	AR : ±0.1° (at 20°C) Brix : ±0.2% Temp : ±1.0°C	Measurement Wavelength	589nm (equivalent to the sodium-D line spectrum)
Repeatability	AR : ±0.05° (at 20°C) Brix : ±0.1%	Light Source	LED
		Power Supply	Size AAA alkaline battery × 4
		International Protection Class	IP67
		Dimensions & Weight	101×160×38mm, 325g (Main unit only)

^{*1} These ranges are measured by the device's 20mm light path. These are convertible to below ranges: -25.00° to +25.00° with a 100mm observation tube -50.00° to +50.00° with a 200mm observation tube. Any sample that has Angle of Rotation within above ranges can be measured by RePo units.

Package RePo-1 Type A Recommended for sugar industry

Cat.No.5020

A package for the RePo-1 that includes syringes and single-use, disposable filters. By using a syringe and a disposable filter, it is possible to measure stabilized values of substances such as raw sugar and other materials. These accessories are also sold separately.

- RePo-1 (Main unit)
- Beaker 100mL
- Syringe Filter Orange 45 (50pcs)
- Syringe 20mL (3pcs)
- Easy Filter (100pcs)

Filter (50pcs)



Syringe (3pcs)



Optional Accessories

Part Name	Compatible models
RE-99110	Standard liquid Repo-series (approx. 7mL)
RE-79000	MAGIC™ for RePo
RE-79423	Beaker 100mL
RE-79420	Syringe Filter Orange 45 (100pcs)
RE-79421	Syringe 20mL (3pcs)
RE-79422	Easy Filter (100pcs)



MAGIC™ for RePo (Anti-volatile sample cover.)

Specifications

	RePo-1 Cat.No.5010	RePo-2 Cat.No.5012	RePo-3 Cat.No.5013	RePo-4 Cat.No.5014	RePo-5 Cat.No.5015
Measurement Scale	ISS, Purity, Conc, SR	Fructose % of HFCS	Invert ratio % of Invert Sugar	Fructose % of Honey, Honey Moisture %	RI, Conc, SR
Measurement Readings	User (ISS/ Purity/ SR/ Conc) Purity/ ISS: with ATC	User (Fructose %)	User (Invert ratio %)	User (Fructose %, Honey Moisture %)	User (RI/ SR/ Conc)
Measurement Range	ISS : -130 to +130°Z	Fructose % : 0.0 to 99.9%	Invert ratio % : 0.0 to 99.9%	Fructose % : 0.0 to 99.9% Honey Moisture % : 13.0 to 30.0%	RI : 1.3306 to 1.5050
Display Range	ISS : -130 to +130°Z ^{*2} Purity : -120 to 120% ^{*2} SR : -999 to +999° ^{*2} Conc : -2.0 to 999% ^{*2}	Fructose % : -2.0 to 102%	Invert ratio % : -2.0 to 102%	Fructose % : -2.0 to 102% Honey Moisture % : 12.5 to 30.5%	RI : 1.3278 to 1.5093 SR : -999 to +999° ^{*2} Conc : -2.0 to 999% ^{*2}
Resolution	ISS : 0.1°Z	Fructose % : 0.1%	Invert ratio % : 0.1%	Fructose % : 0.1% Honey Moisture % : 0.1%	RI : 0.0001
Measurement Accuracy	ISS : ±3.0°Z (at 20°C)			Honey Moisture % : ±0.2%	RI : ±0.0002 (at 20°C)
Repeatability	ISS : ±1.5°Z (at 20°C)			Honey Moisture % : ±0.2%	RI : ±0.0002 (at 20°C)
Temperature Compensation Range	ISS/ Purity : 18 to 40°C			Honey Moisture % : 15 to 40°C	

^{*2} Measurements are round to 1 decimal place up to 99.9 and to a whole number above 100.

Reference : AR = Angle of Rotation, SR = Specific Rotation, ISS = International Sugar Scale, Temp = Temperature, Conc = Concentration, RI = Refractive Index, ATC= Automatic Temperature Compensation

All ATAGO products are designed and manufactured in Japan.

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HACCP GMP GLP

ATAGO products comply with HACCP,GMP, and GLP system standards.

Simultaneous Measurement of Refractive Index and Angle of Rotation – Making the Invisible, Visible

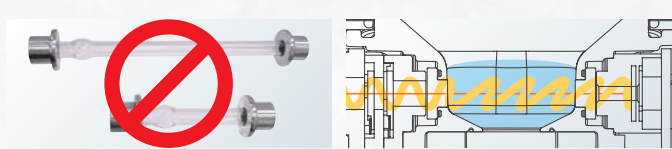
Economical -
Only a Small
Amount of
Sample Required

The sample amount is a mere 3mL. Simultaneously measures refractive index and angle of rotation. Compared to standard 100mm and 200mm observation tubes, much less volume of liquid (sample) is needed to complete measurements.



Absolutely No
Observation
Tubes
Necessary

The RePo requires absolutely no observation tubes whatsoever. No more hassling with sample prep, avoiding air bubbles, and washing out thin, narrow observation tubes.



2 in 1 Hybrid
RePo series

The World's
Smallest,
Portable
Device

A single device that can measure refractive index and angle of rotation. Compared to other polarimeters up until now, it is 1/20th the size, compact, and fits in the palm of your hand. Its portability means you can measure anywhere; you are no longer limited to a designated spot.

Compatible
With All
Kinds of
Samples

Samples with a high angle of rotation can be measured by diluting them.

ISS RePo-1

Standard model of the RePo Series. Toggle through Angle of Rotation, Brix, Purity, International Sugar Scale, Specific Rotation and temperature displays simply by pressing a button.

HFCS RePo-2

HFCS (high-fructose corn syrup) is a liquid sweetener mixture of glucose and fructose. As it possesses a distinctive quality in which sweetness levels increase under low temperatures, it is used in soft drinks and frozen desserts. The RePo-2 displays the amount of fructose (%) contained in HFCS.



Honey RePo-4

In Europe, purity analysis through angle of rotation is designated per honey and food standards. This instrument measures the amount of fructose (%) among the sugars contained in the honey and honey moisture (%), which is useful when harvesting honey.



Inverted Sugar RePo-3

Inverted Sugar is a sweetener made by hydrolyzing (splitting) sucrose into glucose and fructose. In contrast to sucrose and glucose, which exhibit slight dextrorotation, fructose has strong levorotation. This instrument displays the amount of sucrose that was converted as an inverted ratio (%).



RI RePo-5

Displays refractive index. This model can display angle of rotation and refractive index, making it ideal for a wide range of samples and industries.

