

Brix
 Inverted sugar concentration
 HFCS-55
 (High Fructose Corn Syrup)
 HFCS-42
 (High Fructose Corn Syrup)

SMART-1

Food Fields

Samples

Fruit juice
 Tea drinks
 Coffee drinks
 Lactic drinks
 Concentrated fruit juice
 Puree
 Liquid sugar
 Glucose
 Honey
 Marmalade
 Condensed milk
 Soy sauce
 Sauce
 Ketchup
 Soup
 Wort
 Vinegar
 Pickle(Liquid)
 Waste liquid of sugar
 etc.

Industrial fields

Water-soluble cutting oil
 Quenching oil
 Water-soluble detergent
 Coolant and brine solutions
 Ethylene glycol
 Propylene glycol
 Rust Preventive
 IPA
 PVA
 Ethanol
 Alkaline solution
 Sodium carbonate
 Acetic acid
 Amino acid
 Protein
 Gelatin
 Salt water
 Seawater
 Coating solution
 Waste liquid of alcohol
 Sodium hydroxide
 Sodium glutamate
 Citric acid
 Glycerin
 Cesium chloride
 Calcium chloride
 Fire extinguishing solution
 Coating liquid
 etc.

Features

- Wide measurement range of 0.00 to 95.00%
- High accuracy of $\pm 0.05\%$
- Automatic Temperature Compensation (ATC) from 5 to 40°C
- Four sugar concentration scales : Brix, inverted sugar, HFCS-55 (High Fructose Corn Syrup) and HFCS-42 (High Fructose Corn Syrup)
- Featuring a second measurement mode designed to continuously take measurements and display an accurate value once readings are stabilized, thus allowing for solutions above or below room temperature to be measured with confidence
- Printer and computer outputs through RS-232C communication
- Three-button design (ZERO, START, and SCALE) for simple, efficient operation

Applications

- Beverage factories
- Food factories
- Sugar factories
- Pharmaceutical, medical, and other industries



The Brix,
 Inverted sugar concentration,
 HFCS-55 (High Fructose Corn Syrup),
 HFCS-42 (High Fructose Corn Syrup)
 can be measured in a range
 of 0.00 to 95.00% and
 with a high accuracy of

$\pm 0.05\%$



Specifications

Cat.No.	3150
Measuring system	Optical refraction critical angle detection system
Measurement items	① Brix (Automatic Temperature Compensation) ② Inverted sugar concentration (Automatic Temperature Compensation) ③ HFCS-55 (High Fructose Corn Syrup) (Automatic Temperature Compensation) ④ HFCS-42 (High Fructose Corn Syrup) (Automatic Temperature Compensation)
Measurement range	① Brix : 0.00 to 95.00% ② Inverted sugar concentration : 0.00 to 95.00% ③ HFCS-55 (High Fructose Corn Syrup) : 0.00 to 95.00% ④ HFCS-42 (High Fructose Corn Syrup) : 0.00 to 95.00%
Minimum indication	① Brix : 0.01% ② Inverted sugar concentration : 0.01% ③ HFCS-55 (High Fructose Corn Syrup) : 0.01% ④ HFCS-42 (High Fructose Corn Syrup) : 0.01% ⑤ Temperature : 0.05°C
Measurement accuracy	① Brix (on measurement of sucrose) : ±0.05% ② Inverted sugar concentration : ±0.05% ③ HFCS-55 (High Fructose Corn Syrup) : ±0.05% ④ HFCS-42 (High Fructose Corn Syrup) : ±0.05% ⑤ Temperature : ±0.05°C
Repeatability	① Brix : 0.01% ② Inverted sugar concentration : 0.01% ③ HFCS-55 (High Fructose Corn Syrup) : 0.01% ④ HFCS-42 (High Fructose Corn Syrup) : 0.01%
Temperature compensation range	5.00 to 40.00°C

Temperature indication accuracy	±0.10°C
Environmental conditions	Ambient temperature: 5 to 40°C Ambient humidity: Max. 90%RH Ambient altitude (Above sea level): Max. 5,000m
Display method	LED
Printer output	Digital Printer DP-22 (A)(optional) is used. Output system: RS-232C Printing items: Either Brix or concentration, and sample No.
Computer communication	Communication system: RS-232C Output item: Either Brix or concentration Input items: Zero setting and measurements can be started from the computer.
Zero setting	Zero is to be set with distilled water.
Light source	LED (D line wavelength approximation)
Material	① Prism: optical glass ② Sample stage: SUS316
Input power supply	AC100 to 240V, 50/60Hz
Power consumption	15VA
Size and weight	Refractometer: 12×27×9cm, 2.0kg (main unit only) AC adapter: 10.5×17.5×4cm, 0.7kg
International Protection Class	IP64 (Excluding AC adapter) Dust-tight and protected against splashing water.

Measuring method



1. Place sample on the surface of the prism.



2. Press and release the START key one time.



3. The measured value is displayed.

Simple

Option

Digital Printer DP-22(A)

Cat. No.	3124
Input method	RS-232C
Type of printer	Thermal dot matrix printer
Printing item	Either Brix or concentration, and sample No.
Printer power supply	AC adapter (Input voltage: AC100 to 240V)
Power consumption	26VA
Size and weight	14×10×4cm, 390g (main unit only)



DP-22(A)

Sucrose Solution (for Brix confirmation)

Parts.No.	RE-110010	RE-110030	RE-110050
Parts Name	10 % Sucrose	30 % Sucrose	50 % Sucrose
Brix Concentration	10.00±0.03%	30.00±0.03%	50.00±0.05%
Contents	Approx. 5ml	Approx. 5ml	Approx. 5ml

* Shelf life for those solution is for 6 weeks.



Sucrose Solution

Explanation of icons

- * Calibration with water
* Calibration 1 point* sur eau distillée
* Kalibrierung mit Wasser
* Calibrazione con acqua
* Calibración con agua
* 用水歸零
- * Digital display
* Affichage numérique
* Digital Anzeige
* Display digitale
* Pantalla digital
* 數字顯示
- * AC outlet (AC100 to 240V)
* Alimentation secteur (CA 100 à 240 V)
* AC Ausgang (AC100 bis 240V)
* Uscita AC (AC100 240V)
* Conexión a 240V CA
* AC插座 (AC100 to 240V)
- * RS-232C Interface
* Interface RS232C pour PC
* Interface RS232C
* Interfaccia RS232C
* Interface RS232C
* RS_232C輸出
- * Automatic Temperature Compensation
* Compensation automatique de température
* Automatische Temperaturkompensation
* Compensazione automatica della temperatura
* Compensación de automática de temperatura
* 自動溫度補償

All ATAGO refractometers are designed and manufactured in Japan.

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

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* Specifications and appearance are subject to change without notice.

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