Automatic Refractometer

ATAGO®

Cat.No.3150

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

SMART-1

Samples

Food Fields

Fruit juice
Tea drinks
Coffee drinks
Lactic drinks
Concentrated fruit juice
Puree
Liquid suger
Glucose
Honey
Marmalade
Condensed milk
Soy sauce
Sauce
Ketchup
Soup
Wort
Vinegar
Pickle(Liquid)
Waste liquid of suger
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 ±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
±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 至 240V)

- * **Can be connected to a printer**
- * Sortie imprimante
- * Verbindung mit Personalcomputer
- * Collegabile a stampante esterna
- * Conexión para impresora
- * 可與印表機連結

- * 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.

ATAGO CO.,LTD.

ISO9001 REGISTERED H.Q. & Factory

* Specifications and appearance are subject to change without notice.

V.06E 1207K Printed in Japan