

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 sugar
Glucose
Honey
Marmalade
Condensed milk
Soy sauce
Sauce
Ketchup
Soup
Wort
Vinegar
Pickle(liquid)
Waste liquid of sugar,
etc.

Features

- A wide measuring range of 0.00 to 95.00%
- A high accuracy of $\pm 0.05\%$
- Automatic Temperature Compensation at a range of 5 to 40°C
- Four kinds of scales, Brix, inverted sugar, HFCS-55 (High fructose Corn Syrup) and HFCS-42 (High fructose Corn Syrup) displayed directly in accordance with the sugar type
- A mode to display a value at a point where it becomes stable!
Hotter or colder solutions than room temperature can be measured without paying attention to the temperature
- Printer and computer outputs through RS-232C communication
- Only three operation keys, ZERO, START, and SCALE which make you comfortable and raise efficiency

Applications

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
NaOH
Sodium glutamate
Citric acid
Glycerin
Injection liquid
Cesium chloride
Calcium chloride
Fire extinguishing solution
Sizing liquid
etc.

- At beverage factories
 - At food factories
 - At sugar factories
- In medical, pharmaceutical 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	①Brix (Automatic Temperature Compensation) ②Inverted sugar concentration (Automatic Temperature Compensation) ③HFCS-55 (High Fructose Corn Syrup)(Automatic Temperature Compensation) ④HFCS-42 (High Fructose Corn Syrup)(Automatic Temperature Compensation)	
Measurement range	①Brix	:0.00 to 95.00%
	②Inverted sugar concentration	:0.00 to 95.00%
	③HFCS-55 (High Fructose Corn Syrup)	:0.00 to 95.00%
	④HFCS-42 (High Fructose Corn Syrup)	:0.00 to 95.00%
Minimum indication	①Brix	:0.01%
	②Inverted sugar concentration	:0.01%
	③HFCS-55 (High Fructose Corn Syrup)	:0.01%
	④HFCS-42 (High Fructose Corn Syrup)	:0.01%
	⑤Temperature	:0.05°C
Measurement accuracy	①Brix (on measurement of sucrose)	:±0.05%
	②Inverted sugar concentration	:±0.05%
	③HFCS-55 (High Fructose Corn Syrup)	:±0.05%
	④HFCS-42 (High Fructose Corn Syrup)	:±0.05%
Repeatability	①Brix : 0.01 %	:0.01%
	②Inverted sugar concentration	:0.01%
	③HFCS-55 (High Fructose Corn Syrup)	:0.01%
	④HFCS-42 (High Fructose Corn Syrup)	:0.01%
Temperature compensation range	5.00~40.00°C	

Temperature indication accuracy	±0.10°C
Environmental conditions	Ambient temperature: 5 to 40 Ambient humidity: Max. 90%RH Ambient altitude (Above sea level):Max. 5,000m
Display method	LED
Printer output	Digital Printer DP-22(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	①Prism:Optical glass ②Sample stage : SUS316
Input power supply	AC100V, 50/60Hz
Power consumption	20VA
Size and weight	Refractometer:12×27×9 cm, 2.0kg AC adapter:10.5×17.5×4 cm, 0.7kg
International Protection Class	IP64 (Excluding AC adapter) Dust-tight and Protected against splashing water.

Measuring method



1.Drop a sample on the surface of the prism.



2.Press and release the START key at once.



3.A measured value is indicated.

Simple

Option

Digital Printer DP-22

C a t . N o .	3013
Input method	RS-232C
Type of printer	Either Brix or concentration,and sample No.
Printing item	Thermal dot matrix printer
Printer power supply	Power terminal is available for DP-22 (optional)on AC adapter of the SMART-1
Power consumption	26VA
Size and weight	13×10×4cm, 390g (main unit only)



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



- * Connectable with printer
- * Sortie imprimante
- * Verbindung mit Personalcomputer
- * Collegabile a stampante esterna
- * Conexión para impresora
- * 可與印表機連結



- *Digital display
- *Affichage numérique
- *Digital Anzeige
- *Display digitale
- *Pantalla digital
- *數字顯示



- * Interface RS-232C
- * Interface RS232C pour PC
- * Interface RS232C
- * Interfaccia RS232C
- * Interface RS232C
- * RS-232C輸出



- * AC outlet(AC100 to 240V)
- * Alimentation secteur(CA 100 à 240 V)
- * AC Ausgang (AC 100 bis 240V)
- * Uscita AC(AC 100 240V)
- * Conexión a 240V CA
- * AC插座(AC 100至240V)



- *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 G.M.P. G.L.P.

ATAGO products are acknowledged by HACCP, G.M.P. and G.L.P. systems.

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*Specifications and design are subject to change without notice.