World's most accurate measurements!

Automatic Digital Refractometer (Cat.No.3921)



Measurement of low concentration samples (less than 5% aqueous solutions) with an accuracy of \pm 0.005% Brix!!



Applications

- Tea beverages
- Sugar-free or low sugar content beverages (diet beverages)
- Non-alcoholic beer and carbonated beverages.
- Low concentration of industrial solutions (surfactants corrosion prevention agents, surface treatment liquids, sodium silicate, and more!)

Specifications

Measuring system	Optical-refraction critical-angle detection system	Ambient temperature	15.00 to 30.00°C
Constant-temperature function	Built-in Peltier thermo-module		Setting upper and lower standard values, a graphic upper and lower limit bar can be displayed with the value.
Measurement scales	Brix (Automatic Temperature Compensation), Refractive Index (RI), User scales (30 User-defined Scales can be inputted).		
		Input of user scale	By simply inputting 3 points corresponding to Brix or concentration,
Measurement range	Brix : 0.000 to 5.000%, Refractive Index (RI) : 1.330150 to 1.341500 Brix : 0.001%, Refractive Index (RI) : 0.000001, Temperature : 0.01 °C	input of user scale	the unit will calculate the conversion formula automatically.
		History function	30 previous measurements are stored and can be displayed or printed.
		Zero adjustment	Zero-set with air and distilled water.
Measurement accuracy	Brix : ± 0.005%	Output	Digital Printer DP-RX or DR-RD(Optional)
	(Under specific ambient and sample temperature) Refractive Index (RI) : \pm 0.000010 (at 20°C)		Communication method RS-232C
	The measured value is displayed in 20 seconds (You can set an automatic delay using the "WAIT" function). In mode-2, the thermo - module can be		AC100V to 240V, 50/60Hz
		Power consumption	480 VA
		Materials	Prism : Optical glass
			Sample Stage : SUS316
			0.1ml more
		Constant temperature conditions	Ambient Temperature 15°C (Thermo-module can be set at 15 to 20°C) Ambient Temperature 20°C (Thermo-module can be set at 15 to 25°C)
Temperature compensation range	,		Ambient Temperature 25°C (Thermo-module can be set at 20 to 25°C)
Tomporature compensation range	15.00 to 30.00 C		Ambient Temperature 30°C (Thermo-module can be set at 25°C)
Display method	Back lit LCD (320 × 240 dpi)	Dimensions and weight	37×26×14cm, 6.9kg (main unit only)

Icons for functions, specifications and scales have been added to this catalog.



























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Automatic Digital Refractometers

RX-DX Series

The leaders of refractometry have arrived!





Application



Measure Refractive Index (nD) for flavors, organic solvents, oils, liquid medicines, etc.



Measure Brix of soft drinks, fruit juices, liquid sugars, seasonings, and more!



metalworking fluid, water-soluble cleaning solution, water-soluble liquid, and more!

Refractive Index (nD)

Medical liquids Liquid rubber Methylene chloride Chemical agents Plasticizer Chinese herbal medicine Diesel oil Cosmetics Gel solutions Crude oil Industrial chemicals Synthetic resin High polymers Fragrance Citrus oil Heavy oil

Plastic liquid solution Vegetable fat and oil Cooking oil Concentrated solutions Spice essential oil

Organic solvent (Toluene) etc.

Oil refinery production Electronic oil Animal oil and fat Polyether fluid Polymer fluids Sodium Silicate Organic sulfur compound

Soy sauce Vinegar Starch

Brix

Corn syrup Soft drinks Sauce (Various) Liquid sugar Liquid egg Tea drinks Seasoning liquid Concentrated fruit Seasoning soy sauce Fruit puree Canned syrup Soybean milk Glucose Waste liquid of sugar Ketchup Tomato juice English tea Milk drinks Coffee, Cocoa Honey Condensed milk Fermentation liquor Pickle (liquid) Starch syrup

Sweet syrup

Gelatin etc.

User Scale

DMF Soluble cutting oil **I**PA Citric acid, acetic acid PVA Glycerin Lubricating oil Amino acid Juice from tobacco leaves Ammonia Ethanol Sodium carbonate Ethylene glycol Antifreeze agents Propylene glycol Urine Starch liquid Broth Water-soluble cleaning solution Injection solution Coolant solution Spinning liquid Calcium chloride Rust preventive Sodium chloride solution Formalin Saltwater Fire extinguishing solution Surfactants Metalworking fluid

Hydrogen peroxide solution Cupric sulfate etc.

■ RX-DX series Special features for each model







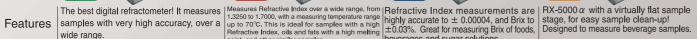








Sodium hydroxide



RX-7000X RX-5000X RX-9000X (Cat No 3263) (Cat.No.3262 (Cat No 3261) (Cat.No.3271) Refractive Index (nD), Brix (Automatic Temperature Compensation), 30 User Scales Refractive Index (nD), Brix (Automatic Temperature Compensation), 60 User scales Refractive Index (nD) 1,32500 to 1,70000 Refractive Index (nD) 1,3250 to 1,7000 1,32700 to 1,58000 Refractive Index (nD) 0.00 to 100.00% Brix 0.0 to 100.0% Brix 0.00 to 100.00% Refractive Index (nD) 0.00001 or 0.0001 Refractive Index (nD) 0.0001 or 0.00001 Refractive Index (nD) 0.00001 0.01% or 0.1% 0.1% or 0.01% Brix 0.01% (by selection) Temperature 0.01°C Temperature 0.01°C Refractive Index (nD) ±0.00004 *±0.00002 Refractive Index (nD) ±0.0001 Refractive Index (nD) ±0.00004 Brix ±0.03% (%) *±0.01% (%) *±0.00005 *±0.00002 ±0.1% (%) $+0.03\% \times$ Brix ±0.05% (*) *±0.01% (*) *±0.05% (%) *±0.01% (*) Brix ±0.10% (%) *±0.02% (%) ±0.05°C ±0.05°C Temperature ±0.05°C MODE-1: This is the standard and most common mode of measurement. The sample's temperature is adjusted to the set target temperature and then the measurement is taker MODE-2: This mode is used to measure the sample quickly and when accuracy is not as critical. After the START key is pressed, the unit measures the Refractive Index and temperature at short intervals and displays the estimated value at the target temperature. MODE-3: This mode is the quickest way to measure and is best suited when the properties of the sample are changing constantly. In this mode, the unit starts measuring immediately after the START key is pressed. A time delay can also be programmed to postpone the measurement after pressing START. 5.00 to 70.00°C (the lower limit is the room temperature minus 10°C) 5.00 to 60.00°C (the lower limit is the room temperature minus 10°C) 37 × 26 × 14cm, 6.9kg (main unit only) 37 × 26 × 14cm, 6.4kg (main unit only)

(*) On measurement of Sucroce solution by MODE-1

TO Series Common Ose			
Measuring system	Optical-refraction critical-angle detection system		
Light source	LED		
Materials	Prism : Artificial Sapphire Sample stage : SUS316		
Power supply	AC100V to 240V		
Power consumption	50/60Hz, 480VA		
Sample volume	Greater than 0.1ml		
Environmental operating conditions	Temperature: 5 to 40°C, Humidity: Max.90%RH, Altitude (above sea level): Max. 5,000m		

Optional

Digital printer DP-RX (Thermal dot) (Cat.No.3121) Digital printer DP-RD (Dot impact) (Cat.No.3122) Volatile sample adapter (RE-56152) for RX-9000 α and RX-7000 α Volatile sample adapter (RE-56151) for RX-5000 α Flow Cell Attachment (RE-56155) for RX-9000 α and RX-7000 α Flow Cell Attachment (RE-56156) for RX-5000 α Fan filter replacement (RE-58001)

◆ RX-CX Series Features ◆

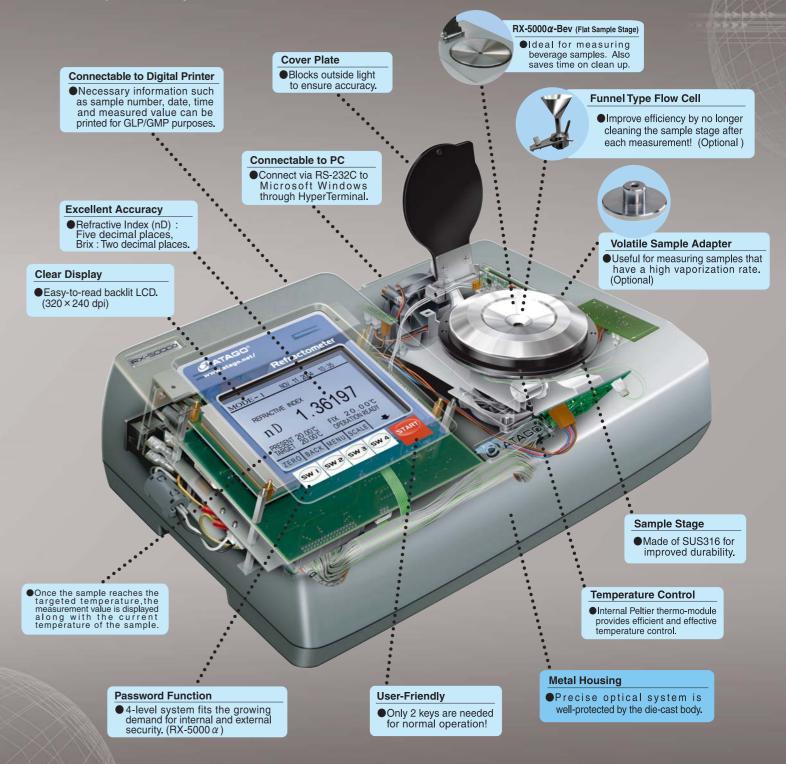
(Each model has customized user-friendly features)

①Easy Measuring: The RX- α offers three unique modes for measuring samples.

②Easy Handling: Automatically calculates a user scale when three points of measurement data are entered. ③Easy Verification: Memory function allows the user to look up the past 30 measurement values with the touch of a button!

♠ E a s y Viewing
: By setting upper and lower standard values, a graphic upper and lower limit bar can be displayed with the value. Easily see if your measurement is within your desired range

⑤Easy double checking: The RX- α Series has a manual calibration function that compensates for the difference between standard liquids, or other units



■Optional

DP-RX (Cat.No.3121)

ision and weight: 17×16×7cm, 580

DP-RD (Cat.No.3122)

11 × 18 × 9cm, 470

Fan filter replacement (RE-58001)

(12 sheets)

Sucrose solutions (For checking Brix)

Sucrose solution 30% (±0.01%

