

Automatic Digital Refractometer

ATAGO®

# RX-5000

Refractive index(nD or nDt)

Brix(%)



*A superb compact-refractometer for industrial use*



The automatic digital refractometer RX-5000 has been developed to meet users' demands for fast, easy, accurate measurement. The RX-5000 measures samples for refractive index and Brix(%)( $\pm 0.00004$  for nD,  $\pm 0.03\%$  for Brix) in just four seconds. For most measurements, only two of the five operation keys are needed. In spite of the unit's compact size and light weight, performance has not been sacrificed. The RX-5000 is the desired refractometer for today's industrial demands.



## ■ Measurement Modes

### Refractive index (nD, nDt) measurement mode

- For the measurement of petrochemicals, refined oil products, crude oil, heavy oil, animal fat and oil, spices, perfumes, chemicals, industrial chemicals, medical supplies, organic solvents, etc.

### Brix (sugar content or soluble solid, %) measurement mode

- For the measurement of soft drinks, fruit juices, coffee, condensed milk, canned syrup, seasonings, jams, sauces, soups, etc.

## ■ Applications

- For testing the quality and refinement of raw materials at the time of purchase or delivery.
- For controlling liquid waste and products during the production process.
- For testing the purity and equivalency of synthetic compounds, distilling refined products, etc.
- For testing and developing medicines, chemical products, processed foods, etc.
- For checking the refractive index and concentration of materials as an auxiliary means of analysis.

## Specifications

### Automatic Digital Refractometer RX-5000 (Cat. No.3251)

Measuring system : Optical-refraction critical-angle detection system

Measurement range :

Refractive index (nD) : 1.32700 to 1.58000

Brix(%) : 0.00 to 95.00%

Minimum indication :

Refractive index (nD) : 0.00001

Brix(%) : 0.01%

Measurement accuracy :

Refractive index (nD) :  $\pm 0.00004$  (with clear liquid)

Brix(%) :  $\pm 0.03\%$  (with clear liquid)

Measuring temperature : 5°C to 60°C

Environment temperature : 5°C to 35°C

Display : Dot matrix LCD (320×240 dots, with back light)

Light source for measurement : LED (wavelength approximate to D-line)

Materials used :

Prism : Sapphire

Sample stage : 316 stainless steel

Power supply :

AC adapter Input voltage : AC100 to 240V

Output voltage : DC 5V, 6A for refractometer

DC 6.5V, 1.5A for printer

Power consumption : 75VA

Output terminals :

Printer output : Digital Printer DP-62 (Optional) is used.

Computer output : RS-232C standard

International protection class : IP64 (Excluding AC adapter)

Dimensions and weight : 37(W)×20(D)×12(H)cm, Body : 5kg AC adapter : 770g

● Input of user scale

5 kinds of user scales can be set in the RX-5000 by input of necessary data from a personal computer connected with the RX-5000.

\* Implement and material required for input of user scale

• personal computer (supporting Windows 95/98/2000/Me/XP)

• exclusive cable (optional)

## Options

### Digital Printer DP-62 (Cat. No.3018)

When connected to the printer output terminal (Centronics compatible) of the RX-5000, the Digital Printer DP-62 automatically prints out the number of samples, measurement results for refractive index (nD or nDt), Brix%, and measured temperature whenever the RX-5000 completes measurement. Moreover, date and time are printed out when the DP-62 is turned on.

#### ● Specifications

Input connector : Conforms to Centronics standard (with connection cable)

Type of printer : Thermal dot matrix printer

Power supply :

From AC adapter, for both DP-62 and RX-5000

Input voltage : DC6.5V, 1.5A

Power consumption : 13 VA

Dimensions and weight : 17(W)×16(D)×7(H)cm, 580g



#### EXPLANATION OF ICONS

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

|   |   |  |   |
|---|---|--|---|
| <ul style="list-style-type: none"> <li>* Can be connected to a printer</li> <li>* Sortie imprimante</li> <li>* Verbindung mit Personalcomputer</li> <li>* Collegabile a stampante esterna</li> <li>* Conexión para impresora</li> <li>* 可與印表機連結</li> </ul>  | <ul style="list-style-type: none"> <li>* RS-232C Interface</li> <li>* Interface RS232C pour PC</li> <li>* Interface RS232C</li> <li>* Interfaccia RS232C</li> <li>* Interface RS232C</li> <li>* RS-232C輸出</li> </ul>  | <ul style="list-style-type: none"> <li>* User scales can be inputted</li> <li>* Echelles à façon programmables</li> <li>* Eingabe von Anwendertabellen</li> <li>* Scale di misura impostabili dall'utente</li> <li>* Definición de escalas de usuario programables</li> <li>* 可輸入用戶自訂刻度</li> </ul> | <ul style="list-style-type: none"> <li>* Measurement at a set temperature</li> <li>* Mesure à température constante programmable</li> <li>* Messung bei voreingestellter Temperatur</li> <li>* Misura a temperatura impostata</li> <li>* Medida a temperatura prefijada</li> <li>* 可設定測量溫度</li> </ul> |
| <ul style="list-style-type: none"> <li>* Automatic temperature compensation</li> <li>* Compensation automatique de température</li> <li>* Automatische Temperaturkompensation</li> <li>* Compensazione automatica della temperatura</li> <li>* Compensación de automática de temperatura</li> <li>* 自動溫度補償</li> </ul> | <ul style="list-style-type: none"> <li>* Can be connected to a circulating constant temperature bath</li> <li>* Thermostatable par circulation</li> <li>* Circulierendes konstant temperiertes Wasserbad angeschlossen</li> <li>* Collegabile a bagno termostatico a circolazione</li> <li>* Conexión para baño termostático de circulación</li> <li>* 可連結恒溫循環水槽</li> </ul> | <ul style="list-style-type: none"> <li>* Calibration with water</li> <li>* Calibration 1 point* sur eau distillée</li> <li>* Kalibrierung mit Wasser</li> <li>* Calibrazione con acqua</li> <li>* Calibración con agua</li> <li>* 用水歸零</li> </ul>  | <ul style="list-style-type: none"> <li>* Digital display</li> <li>* Affichage numérique</li> <li>* Digital Anzeige</li> <li>* Display digitale</li> <li>* Pantalla digital</li> <li>* 數字顯示</li> </ul>   |
| <ul style="list-style-type: none"> <li>* AC outlet(AC100 to 240V)</li> <li>* Alimentation secteur(CA 100 à 240 V)</li> <li>* AC Ausgang (AC 100 bis 240V)</li> <li>* Uscita AC (AC 100 240V )</li> <li>* Conexión a 240V CA</li> <li>* AC插座(AC 100至240V)</li> </ul>   | <ul style="list-style-type: none"> <li>* Refractive index scale</li> <li>* Indice de réfraction</li> <li>* Skala fuer Refraktive Index</li> <li>* Indice di rifrazione</li> <li>* Escala de índice de refracción</li> <li>* 折射率刻度</li> </ul>  |  |   |



**HACCP G.M.P. G.L.P.**

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

\*Specifications and design are subject to change without notice.

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