

ATAGO® DIGITAL REFRACTOMETER

RX™ - i Series

RX™-series with Touchscreen. ATAGO taking refractometers to the next level.



The body case is the same as the RX™-α.

Additional upgrades from the RX™-α

- Icons
- Touchscreen
- Self-diagnosis
- Sound
- User Scale

OCT. 1, 2015 10:15 20.10 °C PRESENT

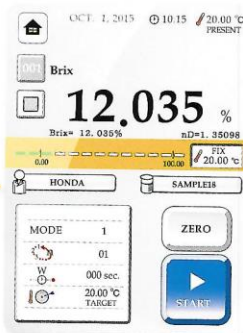
HISTORY

DATE	TIME	UNIT	VALUE	TEMP
009	OCT. 1, 2015 10:14	nD	OUT OF RANGE	20.00
008	OCT. 1, 2015 10:12	nD	OUT OF SCALE	20.00
007	OCT. 1, 2015 10:10	nD	OUT OF WATER	20.00
006	OCT. 1, 2015 10:10	ZERO	ZERO SET END	25.00
005	OCT. 1, 2015 10:09	Brix	10.005	25.00
004	OCT. 1, 2015 10:09	Brix	10.030	25.00
003	OCT. 1, 2015 10:09	Brix	10.020	25.00
002	OCT. 1, 2015 10:07	Brix	10.020	25.00
001	OCT. 1, 2015 10:07	Brix	10.040	25.00
000	OCT. 1, 2015 10:05	Brix	10.005	25.00

USB ALL RESULT PRINT

ERROR DATA FULL CLEAR

Measurement History



Measurement Screen



Self-diagnosis

5 Measurement Mode Options

MODE-1 For maximum accuracy

Displays the measurement value once the sample reaches the target temperature.

MODE-S For emulsion samples

Displays the measurement value once a certain level of sample stability is achieved.

MODE-2 For fast results

Measures Refractive Index and temperature at fixed intervals and displays the estimated measurement value at the target temperature.

MODE-T Recommended for Measuring Low Brix Liquid Samples (such as teas)

Equipped only on the RX™-5000i-Plus, MODE-T is recommended for users who place importance on obtaining highly repeatable results (Brix0.001%).

MODE-3 For no temperature control

Provides an option to turn the thermo-module off. Without temperature control, the measurement value is displayed in 4 seconds after the START key is pressed.

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RX™ series conforms to ASTM Standards (P.99)

RX™ - α Series

The World's Highest Standard of Technology
Stemming from Over Half a Century of Expertise.



NEW FDA 21 CFR Part 11 Software Included in Standard Delivery.

- Measurement History
- Programmable User Scale
- Resolve Measurement Value Discrepancy
- Password Security
(RX™-5000a-Plus, RX™-5000a, RX™-5000a-Bev)
- Built-in Peltier Thermo-module

3 year warranty

RX™-α and RX™-i comes standard with a two (2) year limited warranty against manufacturer's defects from the date of the original purchase. The warranty period can be extended to three (3) years if the product is registered with ATAGO.

Optional Accessories

● MAGIC™

- RE-56180 MAGIC™ (metal)
- RE-56185 MAGIC™ (resin)

Used for measuring volatile substances. Choose either metal or resin.
(Excluding RX™-5000a-Bev and 007a)



Calibration solutions on Page 99

● Funnel-type Flow Cell

- RE-56172
5000a-Plus, 5000a, 5000i-Plus, and 5000i
- RE-56173
9000a, 7000a, 9000i, and 7000i

Save time with the flow cell.
No need to clean the prism between measurements.



The wetted parts can be customized with materials that are resistant to corrosive chemicals. P98

Optional printers P98

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ATAGO® DIGITAL REFRACTOMETER

Touch Panel Models



RX-i series Upgraded Features

DIAGNOSTIC

GOOD →
KEEP THE PRISM CLEAN



ENTER

Self-diagnosis

The instrument can detect irregularities with the intensity of light or waveforms. Perform this assessment regularly to ensure accurate measurements.

Special Scales

- | | |
|---|---|
| ☐ Chlorine 20°C | ☐ Inverted Sugar 20°C |
| ☒ Chlorine 30°C | ☐ Inverted Sugar 30°C |
| ☐ Fructose 20°C | ☐ Honey maltose 20°C |
| ☐ Fructose 30°C | ☐ Hydrogen peroxide 20°C |
| ☐ HFCS-55 20°C | ☐ Sodium hydroxide 20°C |
| ☐ HFCS-55 30°C | ☐ Sodium chloride (dry) 20°C |
| ☐ HFCS-42 20°C | ☐ Sodium chloride (dry) 30°C |
| ☐ HFCS-42 30°C | ☐ Salinity |

QUIT ENTER

Special Scales

The RX™-i series comes pre-programmed with 23 of the most commonly used concentration scales.

Common Specifications

Materials	Sample stage - SUS 316 Prism - Synthetic sapphire
Power supply	AC100 to 240V, 50/60Hz
Power Consumption	90VA
Output	Printer and PC (via RS-232C)
Dimensions and weight	37×26×14cm (RX™-9000i and 7000i 7.0kg, RX™-5000i-Plus and 5000i 6.6kg) (main unit only)

Optional printers **P98**

Wide Range and High Accuracy

RX™-9000i

Cat.No.3278

Wide nD
High Accuracy

The RX™-9000i features both high accuracy and wide measurement range and comes with newly added functions, such as self-diagnosis capability.

RNG : Refractive Index (nD) 1.29980 to 1.71500 Brix 0.00 to 100.00% (ATC)
TMP : 5.00 to 75.00°C (No lower than 10°C below or higher than 55°C above the ambient temperature)
RES : Refractive Index (nD) 0.00001 Brix 0.01% Temp 0.01°C
SCL : 100

Wide Range

RX™-7000i

Cat.No.3279

Wide nD

The RX™-7000i features wide measurement range and the intuitive touch screen technology.

RNG : Refractive Index (nD) 1.29980 to 1.71500 Brix 0.00 to 100.00% (ATC)
ACC : Refractive Index (nD) ±0.0001 Brix ±0.1% Temp ±0.05°C
TMP : 5.00 to 75.00°C (No lower than 10°C below or higher than 55°C above the ambient temperature)
RES : Refractive Index (nD) 0.00001 (0.0001)
Brix 0.01% (0.1%) (Factory default setting) Temp 0.01°C
SCL : 100

Flagship, Most Accurate and Full Range

RX™-5000i-Plus

Cat.No.3275

No.1 Brix

The RX™-5000i-Plus of the most accurate refractometer in the world is now even more stylish, smart, and functional.

RNG : Refractive Index (nD) 1.32420 to 1.58000 Brix 0.000 to 100.000% (ATC)
ACC : Refractive Index (nD) ±0.00002 Brix ±0.010% Temp ±0.05°C
TMP : 5.00 to 75.00°C (No lower than 10°C below or higher than 55°C above the ambient temperature)
RES : Refractive Index (nD) 0.00001 Brix 0.001% Temp 0.01°C
SCL : 100

ATAGO's Basic Model

RX™-5000i

Cat.No.3276

No.1 Sales

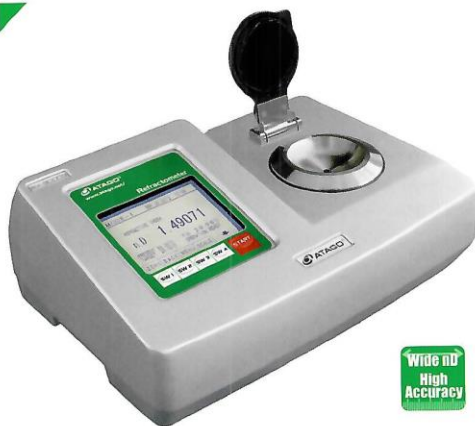
The RX™-5000i measures with the same accuracy level as the RX™-5000a and provides reliable measurements with newly added functions and the touch screen operation.

RNG : Refractive Index (nD) 1.32420 to 1.58000 Brix 0.00 to 100.00% (ATC)
ACC : Refractive Index (nD) ±0.00004 Brix ±0.03% Temp ±0.05°C
TMP : 5.00 to 75.00°C (No lower than 10°C below or higher than 55°C above the ambient temperature)
RES : Refractive Index (nD) 0.00001 Brix 0.01% Temp 0.01°C
SCL : 100

Measurement accuracy : When measuring a standard sucrose solution of up to 50% Brix or standard refractive index solution in MODE-1 at 20°C. (except RX™-9000i)

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Wide nD
High Accuracy

Wide Range, High Temperature, and Accuracy

RX™ - 9000α

Cat.No.3263

The RX™-9000α is a fully automatic digital refractometer with high accuracy and wide measurement range. This instrument is suitable for multiple sample types.

RNG : Refractive Index (nD) 1.29980 to 1.71500 Brix 0.00 to 100.00% (ATC)

ACC : Refractive Index (nD) ± 0.00004 (nD 1.33299 to 1.42009, 10 to 30°C.

For other ranges, (nD) ± 0.00010) Brix $\pm 0.03\%$ (Brix 0.00 to 50.00%, 10 to 30°C) $\pm 0.05\%$ (Brix 50.01 to 95.00%, 10 to 30°C.

For other ranges, Brix $\pm 0.10\%$ * $\pm 0.02\%$) Temp $\pm 0.05^\circ\text{C}$

TMP : 5.00 to 70.00°C (The lower limit is the room temperature - (minus) 10°C)

RES : Refractive Index (nD) 0.00001 Brix 0.01% Temp 0.01°C

SCL : 30



Wide
nD

Wide Range and High Temperature

RX™ - 7000α

Cat.No.3262

The RX™-7000α features wider measurement ranges for refractive index and temperature. Best for oils and fats with high melting points, aroma oils of high refractive index, and organic solvents.

RNG : Refractive Index (nD) 1.29980 to 1.71500 Brix 0.00 to 100.00% (ATC)

ACC : Refractive Index (nD) ± 0.0001

Brix $\pm 0.1\%$ Temp $\pm 0.05^\circ\text{C}$

TMP : 5.00 to 70.00°C (The lower limit is the room temperature - (minus) 10°C)

RES : Refractive Index (nD) 0.00001 (0.0001)

Brix 0.01% (0.1%) (Factory default setting) Temp 0.01°C

SCL : 30

ATC=Automatic Temperature Compensation

Measurement accuracy

When measuring a standard sucrose solution of up to 50% Brix or standard refractive index solution in MODE-1 at 20°C. (except RX™-9000α)

● Reference

RNG	Measurement range
ACC	Measurement accuracy
TMP	Measurement temperature
RES	Resolution
SCL	User programmable scales

● Common Specifications

Materials	Sample stage - SUS 316 Prism - Synthetic sapphire
Power supply	AC100 to 240V, 50/60Hz
Power consumption	65VA
Output	Printer and PC (via RS-232C)
Dimensions and weight	37×26×14cm, 6.8(main unit only)

Optional printers **P98**

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ATAGO® DIGITAL REFRACTOMETER



**No.1
Brix**

Flagship, Most Accurate and Full Range

RX™ -5000α-Plus

Cat.No.3266

The RX™ -5000α-Plus features improved accuracy over the RX™ -5000α with $\pm 0.010\%$ Brix and Refractive Index ± 0.00002 .

RNG : Refractive Index (nD) 1.32700 to 1.58000 Brix 0.000 to 100.000% (ATC)

ACC : Refractive Index (nD) ± 0.00002

Brix $\pm 0.010\%$ Temp $\pm 0.05^\circ\text{C}$

TMP : 5.00 to 60.00°C (The lower limit is the room temperature - (minus) 10°C)

RES : Refractive Index (nD) 0.00001 Brix 0.005% Temp 0.01°C

SCL : 60



**Flat
Stage**

Flat Sample Stage

RX™ -5000α-Bev

Cat.No.3271

The RX™ -5000α-Bev is ideal for measuring beverages. A flat sample stage makes it easier to wipe off the sample and allows for faster and easier clean up.

RNG : Refractive Index (nD) 1.32700 to 1.58000 Brix 0.00 to 100.00% (ATC)

ACC : Refractive Index (nD) ± 0.00004 Brix $\pm 0.03\%$ Temp $\pm 0.05^\circ\text{C}$

TMP : 5.00 to 60.00°C (The lower limit is the room temperature - (minus) 10°C)

RES : Refractive Index (nD) 0.00001 Brix 0.01% Temp 0.01°C

SCL : 60



**No.1
Sales**

ATAGO's Basic Model

RX™ -5000α

Cat.No.3261

The RX™ -5000α is a reliable cost effective instrument. An excellent alternative to traditional Abbe refractometers and essential to any QC/QA lab.

RNG : Refractive Index (nD) 1.32700 to 1.58000 Brix 0.00 to 100.00% (ATC)

ACC : Refractive Index (nD) ± 0.00004 Brix $\pm 0.03\%$ Temp $\pm 0.05^\circ\text{C}$

TMP : 5.00 to 60.00°C (The lower limit is the room temperature - (minus) 10°C)

RES : Refractive Index (nD) 0.00001 Brix 0.01% Temp 0.01°C

SCL : 60

Optional printers **P98**

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Low Concentration

RX™-007α

Cat.No.3921

The RX™-007α is suitable for measuring water soluble samples with very low concentration (5.000% or less) at a very high accuracy of $\pm 0.005\%$.

RNG : Refractive Index (RI) 1.330150 to 1.341500 Brix 0.000 to 5.000% (ATC)
 ACC : Refractive Index (RI) ± 0.000010 Brix $\pm 0.005\%$
 (under specified ambient temperature and constant temperature)
 TMP : 15.00 to 30.00°C (The lower limit is the room temperature - (minus) 5°C)
 RES : Refractive Index (RI) 0.000001 Brix 0.001% Temp 0.01°C
 SCL : 30

ATC=Automatic Temperature Compensation

Measurement accuracy

When measuring a standard sucrose solution of up to 50% Brix or standard refractive index solution in MODE-1 at 20°C. (except RX™-007α)

● Reference

RNG Measurement range
 ACC Measurement accuracy
 TMP Measurement temperature
 RES Resolution
 SCL User programmable scales

● Common Specifications

Materials	Sample stage - SUS 316 Prism - Synthetic sapphire, Optical glass (RX™-007α)
Power supply	AC100 to 240V, 50/60Hz
Power consumption	65VA
Output	Printer and PC (via RS-232C)
Dimensions and weight	37×26×14cm 6.4kg(RX™-5000α-Plus/RX™-5000α) 37×26×14cm 6.1kg(RX™-5000α-Bev) 37×26×14cm 6.7kg(RX™-007α) (main unit only)

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Optional printers P98