

	PR-32 $\alpha$	PR-101 $\alpha$	PR-201 $\alpha$	PR-301 $\alpha$
Cat.No.	3405	3442	3452	3462
Measurement Range	Brix0.0~32.0%	Brix0.0~45.0%	Brix0.0~60.0%	Brix45.0~90.0%
Minimum Indication		Brix 0.1%		
Measurement Accuracy	Brix $\pm 0.1\%$ (5~40°C)		Brix $\pm 0.1\%$ (10~40°C)	Brix $\pm 0.1\%$ (10~30°C)
Measurement Temperature	5~40°C Automatic Temperature Compensation		10~40°C Automatic Temperature Compensation	
Ambient Temperature	5~40°C		10~40°C	
Sample Volume		0.1ml or more		
Measurement Time		3 seconds (approximately)		
Power Supply		006P dry battery (9V)		
International Protection Class		IP64 Water Resistant		
Dimensions and Weight		17 (W) $\times$ 9 (D) $\times$ 4 (H) cm, 300g		

### Certification

In accordance with ISO Quality Management Systems, ATAGO can provide calibration and certification for any ATAGO refractometer. The following documents will be issued (for a service fee):

1. Calibration Certificate
2. Traceability System Diagram
3. Traceability Certificate



**NEW!**

### Digital Refractometer PR-RI

**Measurement Range:** Refractive index 1.3306~1.4436  
Temperature 5~45°C

**Minimum Indication:** Refractive index 0.0001  
Temperature 1°C

**Measurement Accuracy:** Refractive index  $\pm 0.0002$  (water at 20°C)  
Temperature  $\pm 1^\circ\text{C}$

**Measurement Temperature:** 5~45°C

**Power Supply:** 006P dry battery (9V)

**Dimensions and Weight:** 17(W)  $\times$  9(D)  $\times$  4(H) cm  
300g (main unit only)



**PR-RI**

**For measuring refractive index!**

### Digital Salt Meter ES-421

**Measurement Range:** 0.00 to 10.0% (100g) of salt concentration

**Minimum Indication:** 0.01% for salt concentration of 0.00 to 2.99%  
0.1% for salt concentration of 3.0 to 10.0%

**Measurement Accuracy:** Displayed value  $\pm 0.05\%$  (for salt concentration of 0.00 to 1.00%)  
Relative precision  $\pm$  less than 5% (for salt concentration of 1.00 to 10.0%)

**Power Supply:** 006P dry battery (9V)

**Dimensions and Weight:** 17(W)  $\times$  9(D)  $\times$  4(H) cm  
300g (main unit only)



**ES-421**

**For measuring Salt %!**

### EXPLANATION OF ICONS

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

- Compact and easy to carry
- Portable
- Leicht und einfach zu tragen
- Calibrare con liquidi standard esclusivi
- Compacto y fácil de llevar
- 輕巧易於攜帶

- Calibration with water
- Calibration 1 point\* sur eau distillée
- Kalibrierung mit Wasser
- Calibrare con acqua
- Calibración con agua
- 用水調零

- Calibration with exclusive standard liquid
- Calibration 1 point sur solution standard
- Kalibrierung mit speziellem Standard
- Calibrare con liquidi standard esclusivi
- Calibración con patrones líquidos especiales
- 使用專屬標準液調零

- Battery operated
- Alimentation par pile
- Batteriebetrieben
- Alimentazione a batteria
- Funcionamiento con batería
- 使用電池操作

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

- Automatic Temperature Compensation
- Compensation automatique de température
- Automatische Temperaturkompensation
- Compensazione automatica della temperatura
- Compensación de automática de temperatura
- 自動溫度補償

- External Light Interference
- Interférence de la lumière externe
- Äußere Lichteinflüsse
- Interferenza della luce esterna
- Luz de Interferencia Externa
- 外部光線干涉

### Digital Refractometer (Optical Refraction Method) Palette Series

# Palette



**The Palette  $\alpha$  - high functionality in a compact size body**

- $\pm 0.1\%$  (Brix) accuracy.
- Programmable user scales enable control of various liquid concentrations.



**PR-32 $\alpha$  Cat.No.3405**

**PR-101 $\alpha$  Cat.No.3442**

**PR-201 $\alpha$  Cat.No.3452**

**PR-301 $\alpha$  Cat.No.3462**

**ATAGO®**

All ATAGO refractometers are designed and manufactured in Japan.

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

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

**ATAGO CO., LTD.**

Headquarters: 32-10, Honcho, Itabashi-ku, Tokyo 173-0001 Japan  
TEL: 81-3-3964-6156 FAX: 81-3-3964-6137  
overseas@atago.net http://www.atago.net/

**ATAGO U.S.A., Inc.**

12011 NE First Street, Bldg. C, Suite 110 Bellevue, WA 98005 U.S.A.  
TEL: 1-425-637-2107 FAX: 1-425-637-2110  
customerservice@atago-usa.com http://www.atago.net/

**ATAGO INDIA Instruments Pvt. Ltd.**

A-501, Mangal Aarambh Business Centre, Near Kora Kendra, Off. S.V. Road, Borivali (West), Mumbai-400 092 India  
TEL: 91-22-2833-8038 / 8076 FAX: 91-22-2899-8164 customerservice@atago-india.com





Palette

# The continuing evolution of the Palette — The Debut of the Palette α

The Palette α series is the ultimate compact instrument which is the result of years of proven reliable performance, ease of operation and the functionality of design.

Sample size  
is Just

1 Drop!

Measurement  
time is Just

3 seconds!

Measures concentration of solutions with a light beam

Names of  
Components

Liquid Crystal Display (LCD)

Prism

START/OFF Switch

SCALE Switch

ZERO Setting Switch

PR-32α Cat.No.3405



PR-101α Cat.No.3442



PR-201α Cat.No.3452



PR-301α Cat.No.3462



Four models of the Palette α are available  
for your different measurement samples.

## Measurement Method



1 Apply 1 drop of sample solution  
onto the prism surface.

2 Press the START/OFF  
Switch.

3 Brix (%) value displayed in  
3 seconds!

## Main Features

### Accuracy improved to $\pm 0.1\%$

NEW!

The conventional measurement accuracy,  $\pm 0.2\%$ , is increased to  $\pm 0.1\%$ . The highest accuracy available in a compact model.

### External-light-Interference (ELI)\*

NEW!

Conventionally, digital optical instruments have the potential to display incorrect measurement values if sampling is performed near a window or outdoors where lighting may be too intense. The new ELI technology provides security under these conditions to ensure accurate measurements.

### Convenient temperature display

NEW!

A temperature display function has been added. The temperature is displayed by simply pressing a switch.

### User scale feature

NEW!

The user scale function has been added. Concentrations of various samples can be displayed by setting up a coefficient. Three separate user scales can be entered.

### Two-year warranty

NEW!

ATAGO has extended the warranty term for the Palette α series to 2 years. For the terms and conditions, contact ATAGO.

### Automatic Temperature Compensation (ATC) function

With ATC, there is no need to worry about the measurement temperature.

### Large, easy to read display

The large-sized liquid crystal panel makes it easy to read the measured result.

## Optional

### Sucrose Solutions (for Brix confirmation)

Part No.	Part Name
RE-110010	10% Sucrose ( $\pm 0.03\%$ )
RE-110030	30% Sucrose ( $\pm 0.03\%$ )
RE-110050	50% Sucrose ( $\pm 0.05\%$ )



### \* External Light Interference (ELI) - Patent Pending

When intense light penetrates the prism of a digital refractometer, the light waves may interfere with the sensor resulting in inaccurate readings.

To ensure accurate measurement results each time, the Palette α is programmed with the ELI function to display the warning message "nnn" when intense direct light is detected. Forming a habit of shading the sample stage with your hand and re-pressing the START/OFF Switch (when the warning message from the ELI function is displayed) will ensure accurate measurement results each time.

## Main Applications

	PR-32α	PR-101α	PR-201α	PR-301α
At fruit and vegetable farming orchards	○	○		
At beverage factories...fruit juices, coffee, soft drinks, etc.	○	○	○	
juice concentrates, etc			○	○
At food factories...		○	○	
soy sauce, various sauces, etc.			○	○
syrups, jellies, etc.			○	○
seasoning, soups		○	○	
jams, marmalade, honey, etc.			○	○
condensed milk, etc			○	○
At fruit and vegetable markets or supermarkets	○	○		
At restaurants or food shops	○	○	○	○
In Junior High, High Schools, or Universities as a course material	○	○	○	○