

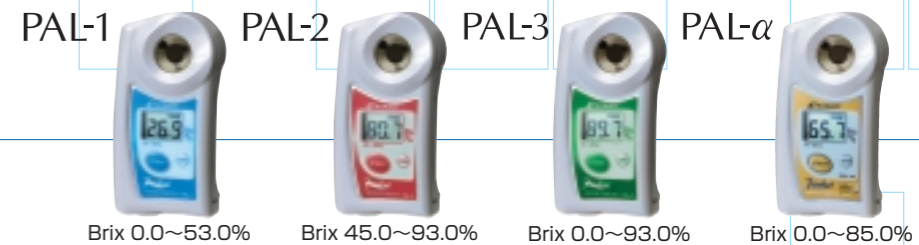




"The PAL sets the stage for the world of refractometry in the 21st century."

## A new ergonomic design for comfort and ease of use!

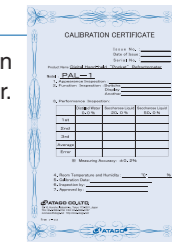
In pursuit of an "easy to use", "easy to operate" and ergonomic architecture of new instruments, ATAGO has achieved a "palm-fitting" masterpiece as well as a unit that is high in hygienic properties. By reducing the number of unnecessary assembly parts, we have reduced the risks of a germ reproductive environment. Through our efforts to produce a hygienic instrument to be used in any industry, these units are designed to be completely washable. The new Pocket PAL series has been approved by the HACCP, and are equipped with the new ELI feature, which ensures accurate measurements - even outdoors. Requests from our customers worldwide are reflected in the development of the new PAL units.



### Certification

In accordance with ISO Quality Management Systems, ATAGO can calibrate and certify your Digital Hand-Held "Pocket" Refractometer. The following documents will be issued (for a service fee):

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



Everyone is talking about the new "Pocket" as featured on recent TV programs and Magazines

## The next generation of Digital Refractometers

### Names and Functions of Components

The PAL can be operated with one hand. **Actual Size**



### Main Features



\* Always clean and shiny - can be cleaned under running water



\* The innovative design makes it easy to pour out and remove a sample, but difficult to spill the sample.

- \* Revolutionary new feature ELI\*
- \* Calibrate with water - no more standard solutions
- \* Light & Compact, 100g
- \* Automatic Temperature Compensation (ATC)
- \* Ergonomically designed for one-handed operation



Convenient storage case

\* External Light Interference (ELI) - Patent Pending  
When intense light penetrates the prism of a digital refractometer, the light waves interfere with the sensor resulting in inaccurate readings. The PAL series is equipped with ELI technology, which will display the warning message "nnn" if the ambient light is too intense. If the warning message is displayed, simply turn away from the light source or shade the prism with your hand and press the START key again.

### Measurement Method



**1**  
Apply 2-3 drops onto the prism surface.



**2**  
Press the START key.



**3**  
Brix(%) value displayed in 3 seconds!

### Optional

#### ● Sucrose Solutions (for Brix confirmation)

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



#### Accessories - For easy carrying -

- PAL-case RE-39409
- PAL-strap RE-39410



### Application

	PAL-1 Low & Intermediate Brix	PAL-2 High Brix	PAL-3 (PAL-α) Full Range
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	○	○	○

The PAL series can measure high temperature samples during the heating or cooking process. (The measured Brix value will stabilize after taking a few repeated measurements.)

### Specifications

Model	PAL-1	PAL-2	PAL-3	PAL-α
Cat. No.	3810	3820	3830	3840
Measurement Range	Brix 0.0~53.0%	Brix 45.0~93.0%	Brix 0.0~93.0%	Brix 0.0~85.0%
Resolution	Brix 0.1%			
Accuracy	Brix ±0.2%		Brix ±0.1%	Brix ±0.2%
Repeatability	Brix ±0.1%			
Measurement Temperature	10~75°C Automatic Temperature Compensation (Boiled samples over 100°C can be measured under specific conditions. Please contact ATAGO for further details.)			
Ambient Temperature	10~40°C			
Power Supply	AAA alkaline battery ×2			
Battery Life	Approx. 11,000 measurements (When using new alkaline batteries)			
International Protection Class	IP65 Water Resistant			
Dimensions and Weight	55(W)×31(D)×109(H)mm, 100g (main unit only)			

