

# Pocket PAL series

The PAL is a completely newly designed digital hand-held instrument that will change the traditional conceptions of refractometers.

● Dimensions and weight : 55×31×109mm, 100g

## DIGITAL HAND-HELD "POCKET" REFRACTOMETERS



**PAL-1** Cat.No. 3810

**PAL-2** Cat.No. 3820

**PAL-3** Cat.No. 3830

**PAL-α** Cat.No. 3840

### Feature

- Calibration with water only
- Extremely water resistant (IP65)
- Light & Compact, 100g
- Revolutionary new feature ELI\*
- Automatic Temperature Compensation (A.T.C.)
- Measurement in 3 seconds
- Ergonomically designed for one-handed operation
- Equipped with a strap holder option
- Convenient storage case

\* External Light Interference (ELI) - Patent Pending



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



Always clean and shiny!!  
Can be easily rinsed under running water.



Patent for Design Registration No. ZL200310103015.2 (China)  
Patent for Invention Registration No. ZL03303431.1 (China), 069244 (Taiwan)  
Patent pending in U.S.A., and Germany and all other countries around the world.



## Digital Hand-held "Pocket" Refractometers (Special Scales)

Model	Scale	Model	Scale	Model	Scale	Model	Scale
<b>Brix</b>		PAL-07S	Sea water (S.G.)	PAL-80S	T.A. 1971	<b>Chemical product's ingredient</b>	
PAL-1	Brix (0.0~53.0%)	PAL-08S	Sea water (Baume)	PAL-83S	KMW (or Babo)	PAL-23S	Glycerin (Low concentration)
PAL-2	Brix (45.0~93.0%)	<b>Food additives, Ingredients</b>		PAL-84S	Baume	PAL-24S	Glycerin (High concentration)
PAL-3	Brix (0.0~93.0%)	PAL-29S	Citric acid	PAL-86S	Oe (Ger) / Brix (Double scale)	PAL-30S	Acetic acid
PAL-α	Brix (0.0~85.0%)	PAL-30S	Acetic acid	PAL-87S	Oe (Oechsle) / Brix (Double scale)	PAL-31S	Formic acid
<b>Sugars</b>		PAL-32S	Phosphoric acid	<b>Clinical inspection, Test</b>		PAL-32S	Phosphoric acid
PAL-12S	Dextran	PAL-64S	Sodium bicarbonate	PAL-42S	Cesium chloride	PAL-44S	Lithium chloride
PAL-14S	Fructose	PAL-65S	Sodium tartrate	PAL-53S	Copper sulfate (Concentration)	PAL-45S	Barium chloride
PAL-15S	Glucose	PAL-70S	Potassium phosphate	PAL-54S	Copper sulfate (S.G.)	PAL-46S	Cobalt chloride
PAL-16S	High Fructose Corn Syrup (HFCS-42)	<b>Alcohol liquid</b>		<b>Sterilization, Bleaching</b>		PAL-47S	Ferric chloride
PAL-17S	High Fructose Corn Syrup (HFCS-55)	PAL-34S	Ethyl alcohol	PAL-39S	Hydrogen peroxide	PAL-48S	Strontium chloride
PAL-18S	Inverted sugar	PAL-36S	Methyl alcohol	<b>Alkaline liquid</b>		PAL-49S	Potassium chloride
PAL-19S	Lactose	PAL-37S	Isopropyl alcohol	PAL-40S	Sodium hydroxide	PAL-50S	Potassium bromide
PAL-20S	Maltose	PAL-85S	Polyvinyl alcohol	<b>Snow-melting agent</b>		PAL-51S	Sodium bromide
<b>Honey</b>		<b>Pharmaceutical reagents, Ingredients</b>		PAL-03S	Snow-melting agent (Sodium chloride)	PAL-52S	Potassium iodide
PAL-22S	Honey moisture	PAL-12S	Dextran	PAL-41S	Snow-melting agent (Calcium chloride)	PAL-53S	Copper sulfate (Concentration)
<b>Soy milk, Bittern (Magnesium chloride)</b>		PAL-13S	Creatine	PAL-43S	Snow-melting agent (Magnesium chloride)	PAL-54S	Copper sulfate (S.G.)
PAL-27S	Soy milk	PAL-23S	Glycerin (Low concentration)	<b>Coolant (Double scale)</b>		PAL-55S	Magnesium sulfate
PAL-43S	Bittern (Magnesium chloride)	PAL-24S	Glycerin (High concentration)	PAL-88S	Propylene glycol / Freezing point of Propylene glycol (°C)	PAL-56S	Potassium sulfate
<b>Cooking</b>		PAL-25S	Inulin	PAL-89S	Propylene glycol / Freezing point of Propylene glycol (°F)	PAL-57S	Nickel sulfate
PAL-96S	Chinese noodle soup / Baume of kansui (Double scale)	PAL-26S	Mannitol	PAL-91S	Ethylene glycol / Freezing point of Ethylene glycol (°C)	PAL-58S	Sodium nitrate
PAL-98S	Condiment	PAL-31S	Formic acid	PAL-92S	Ethylene glycol / Freezing point of Ethylene glycol (°F)	PAL-59S	Zinc sulfate
PAL-Pâtissier	Brix / Baume (Double scale) <b>NEW</b>	PAL-32S	Phosphoric acid	<b>Artificial leather, Fabric</b>		PAL-60S	Silver nitrate
<b>Salinity</b>		PAL-51S	Sodium bromide	PAL-38S	Dimethyl formamide	PAL-61S	Sodium nitrate
PAL-03S	Sodium chloride (g/100g)	PAL-55S	Magnesium sulfate	<b>Paste</b>		PAL-62S	Potassium carbonate
PAL-106S	Sodium chloride (g/100ml)	PAL-64S	Sodium bicarbonate	PAL-21S	Dextrin	PAL-63S	Sodium carbonate
PAL-04S	Sodium chloride (S.G.)	PAL-65S	Sodium tartrate	<b>Cutting oil</b>		PAL-64S	Sodium bicarbonate
PAL-05S	Sodium chloride (Baume)	PAL-66S	Potassium oxalate	PAL-102S	Cutting oil	PAL-67S	Potassium chromate
<b>Sea water</b>		PAL-68S	Potassium dichromate	<b>Refractive index</b>		PAL-68S	Potassium dichromate
PAL-06S	Sea water (Concentration)	PAL-70S	Potassium phosphate	PAL-FI	Refractive index	PAL-69S	Sodium thiosulfate
<b>Wine</b>		PAL-72S	Sodium tungstate			PAL-70S	Potassium phosphate
		PAL-79S	T.A. 1990			PAL-71S	Sodium molybdate
						PAL-72S	Sodium tungstate