

# 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 E.L.I.\*
- 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 (E.L.I.)-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.



## 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-11S	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-Pâtisier	Brix / Baume (Double scale) <b>NEW</b>	PAL-64S	Sodium bicarbonate	<b>○Artificial leather, Fabric</b>		PAL-60S	Silver nitrate
<b>○Salinity</b>		PAL-65S	Sodium tartrate	PAL-38S	Dimethyl formamide	PAL-61S	Sodium nitrate
PAL-03S	Sodium chloride (g/100g)	PAL-66S	Potassium oxalate	<b>○Paste</b>		PAL-62S	Potassium carbonate
PAL-106S	Sodium chloride (g/100ml)	PAL-68S	Potassium dichromate	PAL-21S	Dextrin	PAL-63S	Sodium carbonate
PAL-04S	Sodium chloride (S.G.)	PAL-70S	Potassium phosphate	<b>○Cutting oil</b>		PAL-64S	Sodium bicarbonate
PAL-05S	Sodium chloride (Baume)	PAL-72S	Sodium tungstate	PAL-102S	Cutting oil	PAL-67S	Potassium chromate
<b>○Sea water</b>		<b>○Wine</b>		<b>○Cutting oil</b>		PAL-68S	Potassium dichromate
PAL-06S	Sea water (Concentration)	PAL-79S	T.A. 1990	<b>○Cutting oil</b>		PAL-69S	Sodium thiosulfate
<b>○Sea water</b>		<b>○Wine</b>		<b>○Cutting oil</b>		PAL-70S	Potassium phosphate
<b>○Sea water</b>		<b>○Wine</b>		<b>○Cutting oil</b>		PAL-71S	Sodium molybdate
<b>○Sea water</b>		<b>○Wine</b>		<b>○Cutting oil</b>		PAL-72S	Sodium tungstate