

hybrid power, Patent

# GREEN POWER pH METER

Model : PH-209G

ISO-9001, CE, IEC1010



pH electrode  
( optional )

No battery  
Generator power



**Lutron**

LUTRON ELECTRONIC

*The Art of Measurement*

# GREEN POWER pH METER

Model : PH-209G

## 1. FEATURES

* Hybrid power, power supply from green power ( handy generator ) or battery. If power source come from " Green power ", battery is no need. Operate the generator 20 seconds will offer 10 minutes energy typically.
* Professional pH/mV METER. pH range : 0 to 14 pH x 0.01 pH. mV range : -1000 mV to 1000 mV.
* The instrument is with mV ( millivolt ) function for mV measurement ( cooperate with optional ORP probe to be a professional ORP meter)
* Wide range manual temperature compensation adjustment .
* Optional ATC (Automatic Temp. Compensation) probe is available for pH measurement.
* Internal Temp. unit °C or °F selection.
* pH function with high input impedance avoids measuring error.
* Microprocessor circuit assures high accuracy and reliable performance.
* Large LCD, dual function display.
* Records Maximum and Minimum readings with recall.
* Data hold.
* Auto power shut off to battery life or manual power off.
* Powered by 006P DC 9V battery.
* RS 232/USB computer serial interface.
* Easy and automatic pH calibration procedures.
* Using the durable, long-lasting components and a strong lightweight ABS-plastic housing case.
* Wide applications: water conditioning, aquariums, beverage, fish hatcheries, food processing, photography, laboratory, paper industry, plating industry, quality control, school & college.

## GENERAL SPECIFICATIONS

Circuit	Custom one-chip of microprocessor LSI circuit.	
Display	40 mm x 32 mm LCD (Liquid crystal display).	
Measurement	pH	0 to 14 pH
	mV	-1000 mV to 1000 mV
Input Impedance	10 <sup>12</sup> ohm	
Temperature Compensation for pH measurement	Manual	0 to 100 °C, be adjusted by push button on front panel.
	Automatic ( ATC )	* Cooperate the optional Temp. probe, TP-07. * 0 to 65 °C.
pH Calibration	pH 7, pH 4, and pH 10, 3 points calibration ensure the best linearity and accuracy.	
Data hold	Hold the current reading value on the display.	
Memory Recall	Maximum and Minimum reading values can be saved and retrieved by record function.	
Sampling Time	Approx. 1 second.	

PATENT	CHINA : ZL200620012764.3	GERMANY : Nr.202006007329.9	TAIWAN : M299401
	JAPAN : 3130269	U.S.A. : PENDING	

Power off	Auto shut off saves battery life or manual off by push button.
Data Output	RS 232/USB PC serial interface. * Connect the optional RS232 cable UPCB-02 will get the RS232 plug ( D9 plug ). * Connect the optional USB cable USB-01 will get the USB plug.
Overload indication	" - - - " symbol on the display.
pH Electrode	Optional, Any pH electrode with BNC connector.
Operating Temperature	0 °C to 50 °C (32 °F to 122 °F).
Operating Humidity	Max. 80% RH.
Power Supply * Hybrid power	<b>Green power :</b> Power from the handy generator, battery is no need.
	<b>Battery power :</b> DC 9V battery, 006P, MN1604 ( PP3 ) or equivalent. * Alkaline or heavy duty type.
Power Consumption	Battery power : Approx. DC 4.5 mA.
Weight	362 g/0.8 LB ( battery included ).
Dimension	170 x 70 x 39 mm ( 6.7 x 2.8 x 1.15 inch).
Standard	Instruction manual.....1 PC.
Accessories	
Optional Probes & Accessories (Ref. page 20)	pH electrodes : * General purpose pH electrode, PE-03 * General purpose pH electrode, PE-11 * Professional pH electrode, PE-01 * Spear tip pH electrode, PE-04HD, PE-06HD * pH electrode build in Temp. sensor, PE-05T * pH electrode + Temp. probe, kit, PE-03K7 ORP electrode, ORP-14 Hard carrying case, CA-06 Soft carrying case, CA-05A RS232 cable, UPCB-02 RS232 cable, USB-01 Application Software, SW-U801-WIN

## ELECTRICAL SPECIFICATIONS (23 ± 5 °C)

Measurement	Range	Resolution	Accuracy
pH	0 to 14 pH	0.01 pH	± (0.02 pH + 2 d)
mV	0 to ± 1000 mV	1 mV	± (0.5% + 2 d)
* pH accuracy is based on calibrated meter only.			
* Specification tests under the environment RF Field Strength less than 3 V/M & frequency less than 30 MHz only.			