

HI97706

Phosphorus Portable Photometer

- **Advanced LED optical system**
 - Innovative optical design that utilizes a reference detector and focusing lens to eliminate errors from changes in the light source and from imperfections in the glass cuvette.
 - LEDs have a much higher luminous efficiency, providing more light while using less power. They also produce little heat, which could otherwise affect electronic stability.
- **CAL Check™**
 - Validate instrument performance at any time using CAL Check cuvettes made with NIST traceable standards. The CAL Check screen guides the user step-by-step through the validation process and user calibration.
- **On-screen tutorial mode with animations**
 - Guides users step-by-step through the measurement process
- **Waterproof and floating IP67 case**
- **Unit of measure is displayed along with reading**
- **Built-in timer**
 - Built-in reaction timer that ensures consistency between tests.
- **Error messages on display**
 - Alerts to problems including no cap, high zero, and standard too low
- **GLP data**
 - Displays the last calibration date.
- **Auto logging**
- **Battery status indicator**
- **Auto-shut off**

Significance of Use

Common in natural systems, such as lakes, oceans, and soil, phosphorus is an essential element for plant and animal growth. However, when present in large concentrations, phosphorus can cause excessive microorganism and algae growth. For hobbyists with saltwater aquaria, a high amount of phosphorus can be problematic to fish and coral. The main source of phosphorus in reef aquaria is through food that is introduced on a daily basis, but it is also produced through the breakdown of plant material and excretion from fish. Replacement water can also be a source of phosphorus in aquaria, where tap water or reverse osmosis water is used to replace evaporated water and control the salt concentration in tanks. Both forms of water contain phosphorus, albeit in varying concentrations, and will have negative effects if the accumulating levels are not controlled. Phosphorus is also responsible for corrosion of piping systems if present in high enough amounts.



Specifications

HI97706 Phosphorus

Measurement	Range	0.0 to 15.0 mg/L (ppm) (as P)
	Resolution	0.1 mg/L
	Accuracy @25°C (77°F)	± 0.3 mg/L ±4% of reading
	Method	Amino Acid Method, adapted from Standard Method for the Examination of Water and Wastewater
Measurement System	Light Source	light emitting diode
	Bandpass filter	525 nm
	Bandpass filter bandwidth	8 nm
	Bandpass filter wavelength accuracy	±1.0 nm
	Light Detector	silicon photocell
	Cuvette type	round 24.6 mm diameter (22 mm inside)
Additional Specifications	Auto logging	50 readings
	Display	128 x 64 pixel B/W LCD with backlight
	Auto-off	after 15 minutes of inactivity (30 minutes before a READ measurement)
	Battery type / Life	alkaline 1.5 V AA (3) / > 800 measurements (without backlight)
	Environment	0 to 50°C (32 to 122°F); 0 to 100% RH, non-serviceable
	Dimensions	142.5 x 102.5 x 50.5 mm (5.6 x 4.0 x 2.0")
	Weight	380 g (13.4 oz.)

HI97706 is supplied with sample cuvettes (2), sample caps (2), plastic stoppers (2), 1.5V AA batteries (3), instrument quality certificate, and instruction manual. CAL Check standards and testing reagents sold separately

Ordering Information

HI97706C includes photometer, CAL Check standards, sample cuvettes (2), sample caps (2), plastic stoppers (2), 1.5V AA batteries (3), scissors, cuvette wiping cloth, CAL Check standard certificate, instrument quality certificate, instruction manual, and rigid carrying case.

Reagents sold separately

Reagents and Standards

HI97706

- HI97706-11** CAL Check standard cuvettes for phosphorus
- HI93706-01** phosphorus reagents for 100 tests
- HI93706-03** phosphorus reagents for 300 tests