

HI97747 · HI97702

# Copper, Low and High Range Portable Photometers

- **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

Due to its malleability, thermal and electrical conductivity, and corrosion resistance, copper is used in a variety of industrial and technological applications. Copper may also be present in natural water and effluents due to widespread use to control biological growths in reservoirs and distribution pipes.



Specifications	HI97747 Copper, LR	HI97702 Copper, HR	
Measurement	Range	0.000 to 1.500 mg/L (ppm) (as Cu)	0.00 to 5.00 mg/L (ppm) (as Cu)
	Resolution	0.001 mg/L	0.01 mg/L (ppm)
	Accuracy @25°C (77°F)	±0.010 mg/L ±5% of reading	±0.02 mg/L ±4% of reading
	Method	adaptation of the USEPA approved bicinchoninate method	
Measurement System	Light Source	light emitting diode	
	Bandpass filter	575 nm	575 nm
	Bandpass filter bandwidth	8 nm	
	Bandpass filter wavelength accuracy	±1.0 nm	
Additional Specifications	Light Detector	silicon photocell	
	Cuvette type	round 24.6 mm diameter (22 mm inside)	
	Auto logging	50 readings	
	Display	128 x 64 pixel B/W LCD with backlight	
Additional Specifications	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.)		

**HI97747** and **HI97702** are 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

**HI97747C** and **HI97702C** includes photometer, CAL Check standards, sample cuvettes (2), sample caps (2), plastic stoppers (2), 1.5V AA batteries (3), cuvette wiping cloth, scissors, CAL Check standard certificate, instrument quality certificate, instruction manual, and rigid carrying case.

Reagents sold separately

Reagents and Standards	HI97747	HI97702
	<b>HI97747-11</b> CAL Check standard cuvettes for copper LR	<b>HI97702-11</b> CAL Check standard cuvettes for copper HR
	<b>HI95747-01</b> copper LR reagents for 100 tests	<b>HI93702-01</b> copper HR reagents for 100 tests
	<b>HI95747-03</b> copper LR reagents for 300 tests	<b>HI93702-03</b> copper HR reagents for 300 tests