



HI97745

Free and Total Chlorine, Hardness, Iron Low Range, and pH 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

Chlorine and pH are two of the most closely monitored parameters in water quality tests. Hardness is also an important parameter, attentively regulated to reduce waste or ensure proper functioning of equipment. Iron can cause an unpleasant taste or stain kitchenware or laundry.

HI97745 Free and Total chlorine, Total Hardness, Iron Low Range and pH

Specifications

pH	Range	6.5 to 8.5 pH
	Resolution	0.1 pH
	Accuracy @25°C (77°F)	±0.1 pH
	Method	adaptation of the phenol red method
Chlorine, Free Chlorine, Total	Range	0.00 to 5.00 mg/L (ppm) (as Cl ₂)
	Resolution	0.01 mg/L
	Accuracy @25°C (77°F)	±0.03 mg/L ±3% of reading
	Method	adaptation of the USEPA method and Standard Method 4500-Cl ₂ method
Total Hardness	Range	0.00 to 4.70 mg/L (ppm) (as CaCO ₃)
	Resolution	0.01 mg/L
	Accuracy @25°C (77°F)	±0.11 mg/L ±5% of reading
	Method	adaptation of the Standard Methods for the examination of Water and Wastewater, 18th ed., calmagite colorimetric method
Iron, Low Range	Range	0 to 1.60 mg/L (ppm) (as Fe)
	Resolution	0.01 mg/L
	Accuracy @25°C (77°F)	±0.01 mg/L ±8% of reading
	Method	adaptation of the TPTZ method method
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.)

Ordering Information

HI97745 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

Reagents and Standards

HI97745

HI97701-11 CAL Check standard cuvettes for free and total chlorine

HI93701-01 free chlorine reagents for 100 tests

HI93701-03 free chlorine reagents for 300 tests

HI97710-11 CAL Check standard cuvettes for pH

HI93710-01 pH reagents for 100 tests

HI93710-03 pH reagents for 300 tests

HI93711-01 total chlorine reagents for 100 tests

HI93711-03 total chlorine reagents for 300 tests

HI97719-11 CAL Check standard cuvettes for hardness

HI93719-01 total hardness reagents for 100 tests

HI93719-03 total hardness reagents for 300 tests

HI97746-11 CAL Check standard cuvettes for iron

HI93746-01 iron reagents for 50 tests

HI93746-03 iron reagents for 150 tests