

HI97707 · HI97708

# Nitrite, 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**

Specifications		HI97707 Nitrite, LR	HI97708 Nitrite, HR
Measurement	Range	0 to 600 µg/L (as NO <sub>2</sub> -N)	0 to 150 mg/L (ppm) (as NO <sub>2</sub> -N)
	Resolution	1 µg/L	1 mg/L
	Accuracy @25°C (77°F)	±20 µg/L ±4% of reading	±4 mg/L ±4% of reading
	Method	adaptation of an EPA approved diazotization method	adaptation of the Ferrous Sulfate method
Measurement System	Light Source	light emitting diode	
	Bandpass filter	466 nm	575 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.)	

**HI97707** and **HI97708** 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

**HI97707C** and **HI97708C** 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

## Ordering Information

## Reagents and Standards

HI97707	<b>HI97707-11</b> CAL Check standard cuvettes for nitrite LR
	<b>HI93707-01</b> nitrite LR reagents for 100 tests
	<b>HI93707-03</b> nitrite LR reagents for 300 tests
HI97708	<b>HI97708-11</b> CAL Check standard cuvettes for nitrite HR
	<b>HI93708-01</b> nitrite HR reagents for 100 tests
	<b>HI93708-03</b> nitrite HR reagents for 300 tests

## Significance of Use

Nitrites can be harmful to aquatic organisms even in low concentrations and for this reason, they are closely monitored in aquaculture facilities. In cooling towers, however, an adequate amount of nitrites is necessary to prevent corrosion. In high concentrations, they can be harmful to the environment and to humans. They are, therefore, normally monitored to verify the quality of water for domestic use, as well as lakes and ponds.

Nitrites are an intermediate product in the nitrogen cycle and are produced by ammonia oxidation with water, or even originate in industrial waste directly. They must not be present in drinking water.