

HI97700 · HI97715

# Ammonia LR and MR 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	HI97700 Ammonia LR	HI97715 Ammonia MR	
Measurement	Range	0.00 to 3.00 mg/L (ppm) (as NH <sub>3</sub> -N)	0.00 to 10.00 mg/L (ppm) (as NH <sub>3</sub> -N)
	Resolution	0.01 mg/L	0.01 mg/L
	Accuracy @25°C (77°F)	±0.04 mg/L ±4% of reading	±0.05 mg/L ±5% of reading
Measurement System	Method	adaptation of the ASTM Manual of Water and Environmental Technology, D1426 Nessler method	
	Light Source	light emitting diode	
	Bandpass filter	420 nm	
	Bandpass filter bandwidth	8 nm	
	Bandpass filter wavelength accuracy	±1.0 nm	
	Light Detector	silicon photocell	
Additional Specifications	Cuvette type	round 24.6 mm diameter (22 mm inside)	
	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	<b>HI97700</b> and <b>HI97715</b> 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		
	<b>HI97700C</b> and <b>HI97715C</b> include 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 HI7101412 rigid carrying case. Reagents sold separately		
Reagents and Standards	HI97700	<b>HI97700-11</b> CAL Check standard cuvettes for ammonia LR	
		<b>HI93700-01</b> ammonia LR reagent for 100 tests	
		<b>HI93700-03</b> ammonia LR reagent for 300 tests	
	HI97715	<b>HI97715-11</b> CAL Check standard cuvettes for ammonia MR	
		<b>HI93715-01</b> ammonia MR reagent for 100 tests	
		<b>HI93715-03</b> ammonia MR reagent for 300 tests	



HI97733

## Ammonia HR 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

Present naturally in surface and wastewaters, ammonia mainly results from the deamination of organic nitrogen-containing compounds and hydrolysis of urea. Ammonia may also be present from water treatment processes that utilize chloramines for disinfection, where ammonia is added to the water to react with chlorine. Ammonia is less likely to appear in groundwater due to adsorption by soil particles.

Specifications		HI97733 Ammonia HR
Measurement	Range	0.0 to 100.0 mg/L (ppm) (as NH <sub>4</sub> <sup>+</sup> )
	Resolution	0.01 mg/L
	Accuracy @25°C (77°F)	±0.5 mg/L ±5% of reading
	Method	adaptation of the ASTM Manual of Water and Environmental Technology, D1426 Nessler method
Measurement System	Light Source	light emitting diode
	Bandpass filter	420 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.)

**HI97733** 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

**HI97733C** 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 HI7101412 rigid carrying case.

Reagents sold separately

### Ordering Information

### Reagents and Standards

HI97733	<b>HI97733-11</b> CAL Check standard cuvettes for Ammonia HR
	<b>HI93733-01</b> ammonia HR reagent for 100 tests
	<b>HI93733-03</b> ammonia HR reagent for 300 tests

See page 10.114 for standard reagents; see page 10.115 for CAL Check kits; see page 10.52 for general accessories