

HI97752

# Calcium and Magnesium 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**

## Specifications

## HI97752 Calcium and Magnesium

Calcium	Range	0 to 400 mg/L (ppm) (as Ca <sup>2+</sup> )
	Resolution	1 mg/L
	Accuracy @25°C (77°F)	±10 mg/L ±5% of reading
	Method	adaptation of oxalate method
Magnesium	Range	0 to 150 mg/L (ppm) (as Mg <sup>2+</sup> )
	Resolution	1 mg/L
	Accuracy @25°C (77°F)	±5 mg/L ±3% of reading
Measurement System	Method	adaptation of the calmagite method
	Light Source	light emitting diode
	Bandpass filter	466 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.)

**HI97752** 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

**HI97752C** includes photometer, CAL Check standards, sample cuvettes (2), sample caps (2), plastic stoppers (2), 1.5V AA batteries (3), cuvette wiping cloth, CAL Check standard certificate, instrument quality certificate, instruction manual, and rigid carrying case.

Reagents sold separately

## Reagents and Standards

HI97752

<b>HI93752-01</b> calcium and magnesium reagents for 100 Tests (50 each)
<b>HI93752-03</b> calcium and magnesium reagents for 300 Tests (150 each)
<b>HI97754-11</b> CAL Check standard cuvettes for magnesium
<b>HI937520-01</b> magnesium reagents for 50 tests
<b>HI937520-03</b> magnesium reagents for 150 tests
<b>HI97752-11</b> CAL Check standard cuvettes for calcium
<b>HI937521-01</b> calcium reagents for 50 tests
<b>HI937521-03</b> calcium reagents for 150 tests

## Significance of Use

Calcium and magnesium both play important roles in the growth of plants. Calcium helps plant roots develop and increases the resistance and strength of plant tissues and stems. Magnesium is an indispensable mineral that helps in the production of chlorophyll, the light-absorbing green pigment that serves as an energy source for plants. It also increases vitamin concentrations and aids in uptake of phosphorus within the plant body.