

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

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|---------------------------|-------------------------------------|---|
| Calcium | Range | 0 to 400 mg/L (ppm) (as Ca ²⁺) |
| | 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 ²⁺) |
| | Resolution | 1 mg/L |
| | Accuracy @25°C (77°F) | ±5 mg/L ±3% of reading |
| | Method | adaptation of the calmagite method |
| Measurement System | 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) |
| | Auto logging | 50 readings |
| Additional Specifications | 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 | HI97752 is supplied with sample cuvettes (2), sample caps (2), plastic stoppers (2), 1.5V AA batteries (3), instrument quality certificate, and instruction manual. <small>CAL Check standards and testing reagents sold separately</small> |

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| Reagents and Standards | HI97752 | HI93752-01 calcium and magnesium reagents for 100 Tests (50 each) |
| | | HI93752-03 calcium and magnesium reagents for 300 Tests (150 each) |
| | | HI97754-11 CAL Check standard cuvettes for magnesium |
| | | HI937520-01 magnesium reagents for 50 tests |
| | | HI937520-03 magnesium reagents for 150 tests |
| | | HI97752-11 CAL Check standard cuvettes for calcium |
| | | HI937521-01 calcium reagents for 50 tests |
| HI937521-03 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.