

HI83325

# Multiparameter Photometer

with Digital pH Electrode Input  
for Nutrient Analysis

The HI83325 benchtop photometer measures 8 different key water quality parameters using 9 different methods. This photometer features an innovative optical system that uses LEDs, narrow band interference filters, focusing lens and both a silicon photodetector for absorbance measurement and a reference detector to maintain a consistent light source ensures accurate and repeatable photometric readings every time.

Consistent and thorough monitoring of plant nutrients is essential to maintaining healthy growth and reproduction. This is easy with the HI83325, a comprehensive way to monitor vital plant nutrients such as potassium, calcium and magnesium. Required in large quantities, potassium plays a vital role in water uptake and enzyme regulation. Calcium helps to strengthen plant cell walls protecting against heat stress while magnesium helps build a strong immune system.



#### • Advanced 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.

#### • Backlit 128 x 64 Pixel Graphic LCD Display

- Backlit graphic display allows for easy viewing in low light conditions
- The 128 x 64 Pixel LCD allows for a simplified user interface with virtual keys and on-screen help to guide the user through use of the meter

#### • Built-in Reaction Timer for Photometric Measurements

- The measurement is taken after the countdown timer expires.
- Countdown timer ensures that all readings are taken at the appropriate reaction intervals regardless of user for better consistency in measurements

#### • Absorbance mode

- Hanna's exclusive CAL Check™ cuvettes for validation of light source and detector

- Allows for the user to plot concentration versus absorbance for a specific wavelength for use with user supplied chemistry or for teaching principles of photometry

#### • Units of Measure

- Appropriate unit of measure along with chemical form is displayed along with reading

#### • Result Conversion

- Automatically convert readings to other chemical forms with the touch of a button

#### • Cuvette Cover

- Aids in preventing stray light from affecting measurements

#### • Data Logging

- Up to 1000 photometric and pH readings can be stored by simply pressing the dedicated LOG button. Logged readings are just as easily recalled by pressing the RCL button
- Sample ID and User ID information can be added to a logged reading using alphanumeric keypad

#### • Connectivity

- Logged readings can be quickly and easily transferred to a flash drive using the USB-A host port or to a computer using the micro USB-B port
- Data is exported as a .CSV file for use with common spreadsheet programs

#### • Rechargeable Battery

- Li-polymer rechargeable battery lasts for 500 measurements or 50 hours of pH measurement

#### • Battery Status Indicator

- Indicates the amount of battery life left

#### • Error Messages

- Photometric error messages
- pH calibration messages include clean electrode, check buffer and check probe



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- Digital pH Electrode Input
  - Measure pH and temperature with a single probe
  - Good Laboratory Practice (GLP) to track calibration information including date, time, buffers used, offset and slope for traceability
  - pH CAL Check™ alerts user to potential problems during the calibration process
  - Space saving having a pH meter and photometer built into one meter



### Supplied Complete

HI83225 is supplied with the HI83300-100 in a rugged carrying case.

Parameter	Range	Resolution	Accuracy	LED (Å nm) with Narrow Band Interference Filter	Method
Ammonia Low Range	0.00 to 3.00 mg/L (as NH <sub>3</sub> -N)	0.01 mg/L	±0.04 mg/L ±4% of reading at 25 °C	@ 420 nm	Nessler
Ammonia Medium Range	0.00 to 10.00 mg/L (as NH <sub>3</sub> -N)	0.01 mg/L	±0.05 mg/L ±5% of reading at 25 °C	@ 420 nm	Nessler
Ammonia High Range	0.0 to 100.0 mg/L (as NH <sub>3</sub> -N)	0.1 mg/L	±0.5 mg/L ±5% of reading at 25 °C	@ 420 nm	Nessler
Calcium	0 to 400 mg/L (as Ca <sup>2+</sup> )	1 mg/L	±10 mg/L ±5% of reading at 25 °C	@ 466 nm	oxalate
Magnesium	0 to 150 mg/L (as Mg <sup>2+</sup> )	1 mg/L	±5 mg/L ±3% of reading at 25 °C	@ 466 nm	calmagite
Nitrate	0.0 to 30.0 mg/L (as NO <sub>3</sub> <sup>-</sup> -N)	0.1 mg/L	±0.5 mg/L ±10% of reading at 25 °C	@ 525 nm	cadmium reduction
Phosphate High Range	0.0 to 30.0 mg/L (as PO <sub>4</sub> <sup>3-</sup> )	0.1 mg/L	±1 mg/L ±4% of reading at 25 °C	@ 525 nm	amino acid
Potassium	0.0 to 20.0 mg/L (as K)	0.1 mg/L	±3.0 mg/L ±7% of reading at 25 °C	@ 466 nm	turbidimetric tetraphenylborate
Sulfate	0 to 150 mg/L (as SO <sub>4</sub> <sup>2-</sup> )	1 mg/L	±5 mg/L ±3% of reading at 25 °C	@ 466 nm	turbidimetric

#### Ordering Information

**HI83325-01** (115V) and **HI83325-02** (230V) is supplied with sample cuvettes and caps (4 ea.), activated carbon for 50 tests, demineralizer for preparation of 10 L deionized water (100g), 100 mL graduated beaker with caps (10), 3 mL pipette, 60 mL syringe, 5 mL syringe, graduated cylinder, spoon, funnel, paper filters (100), cloth for wiping cuvettes, USB to micro USB cable connector, power adapter, instruction manual, instrument quality certificate, and carrying case.

#### Standards

**HI83325-11** CAL Check Cuvette Kit for HI83325