

HI83325

Multiparameter Photometer

with Digital pH Electrode Input
for Nutrient Analysis

The HI83325 benchtop photometer measures 8 different key water quality parameters using 10 different methods. This photometer features an innovative optical system that uses an LED, a narrow band interference filter, a focusing lens, and both a silicon photodetector for absorbance measurement and a reference detector to maintain a consistent light source to ensure 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

• 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

• Battery Status Indicator

- Indicates the amount of battery life left

• 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 the 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

• Error Messages

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



HI83325-11



Supplied Complete

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

Parameter	Range	Resolution	Accuracy	Wavelength	Method	Reagent Code
Ammonia Low Range	0.00 to 3.00 mg/L (as NH ₃ -N)	0.01 mg/L	±0.04 mg/L ±4% of reading at 25 °C	420 nm	Adaptation of the ASTM Manual of Water and Environmental Technology, D1426 Nessler Method	HI93700-01 Reagents for 100 tests
						HI93700-03 Reagents for 300 tests
Ammonia Medium Range	0.00 to 10.00 mg/L (as NH ₃ -N)	0.01 mg/L	±0.05 mg/L ±5% of reading at 25 °C	420 nm	Adaptation of the ASTM Manual of Water and Environmental Technology, D1426, Nessler Method	HI93715-01 Reagents for 100 tests
						HI93715-03 Reagents for 300 tests
Ammonia High Range	0.0 to 100.0 mg/L (as NH ₃ -N)	0.1 mg/L	±0.5 mg/L ±5% of reading at 25 °C	420 nm	Adaptation of the ASTM Manual of Water and Environmental Technology, D1426, Nessler Method	HI93733-01 Reagents for 100 tests
						HI93733-03 Reagents for 300 tests
Calcium	0 to 400 mg/L (as Ca ²⁺)	1 mg/L	±10 mg/L ±5% of reading at 25 °C	466 nm	Adaptation of the Oxalate Method	HI937521-01 Reagents for 50 tests
						HI937521-03 Reagents for 150 tests
Iron Low Range	0.000 to 1.600 mg/L (as Fe)	0.001 mg/L	±0.010 mg/L ±8% of reading at 25 °C	575 nm	Adaptation of the TPTZ Method	HI93746-01 Reagents for 50 tests
						HI93746-03 Reagents for 150 tests
Iron High Range	0.00 to 5.00 mg/L (as Fe)	0.01 mg/L	±0.04 mg/L ±2% of reading at 25 °C	525 nm	Adaptation of Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 3500-Fe B, Phenanthroline Method	HI93721-01 Reagents for 100 tests
						HI93721-03 Reagents for 300 tests
Iron(II)/(III)	0.00 to 6.00 mg/L (as Fe)	0.01 mg/L	±0.10 mg/L ±2% of reading at 25 °C	525 nm	Adaptation of Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 3500-Fe B, Phenanthroline Method	HI96777-01 Reagents for 100 tests
						HI96777-03 Reagents for 300 tests
Magnesium	0 to 150 mg/L (as Mg ²⁺)	1 mg/L	±5 mg/L ±3% of reading at 25 °C	466 nm	Adaptation of the Calmagite Method	HI937520-01 Reagents for 50 tests
						HI937520-03 Reagents for 150 tests
Nitrate	0.0 to 30.0 mg/L (as NO ₃ ⁻ -N)	0.1 mg/L	±0.5 mg/L ±10% of reading at 25 °C	525 nm	Adaptation of the Cadmium Reduction Method	HI93728-01 Reagents for 100 tests
						HI93728-03 Reagents for 300 tests
Phosphate High Range	0.0 to 30.0 mg/L (as PO ₄ ³⁻)	0.1 mg/L	±1.0 mg/L ±4% of reading at 25 °C	525 nm	Adaptation of the Standard Methods for the Examination of Water and Wastewater, 18th Edition, Amino Acid Method	HI93717-01 Reagents for 100 tests
						HI93717-03 Reagents for 300 tests
Potassium	0.0 to 20.0 mg/L (as K)	0.1 mg/L	±3 mg/L ±7% of reading at 25 °C	466 nm	Adaptation of the Turbidimetric Tetraphenylborate Method	HI93750-01 Reagents for 100 tests
						HI93750-03 Reagents for 300 tests
Sulfate	0 to 150 mg/L (as SO ₄ ²⁻)	1 mg/L	±5 mg/L ±3% of reading at 25 °C	466 nm	Sulfate is precipitated with barium chloride crystals	HI93751-01 Reagents for 100 tests
						HI93751-03 Reagents for 300 tests

Ordering Information

HI83325-01 (115V) and HI83325-02 (230V) is supplied with sample cuvette (4 pcs.), sample cuvette cap (4 pcs.), cloth for wiping cuvettes, scissors, 100 mL plastic graduated beaker with cap, 170 mL plastic graduated beaker, 3 mL plastic pipette, 5 mL graduated syringe, 60 mL graduated syringe, graduated cylinder, spoon, funnel, filter paper, demineralizer bottle for 10 L of water, activated carbon for 50 tests, USB cable, 5 Vdc power adapter, instrument quality certificate, and instruction manual.

Standards

HI83325-11 CAL Check Cuvette Kit for HI83325