

HI83300

Multiparameter Photometer

with Digital pH Electrode Input
for Laboratories

HI83300 is a compact, multiparameter photometer for use in the lab or in the field. The meter is one of the most advanced photometers available with an 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. This meter has 63 different programmed methods measuring 37 key water quality parameters and also offers an absorbance measurement mode for performance verification and for users that would like to develop their own concentration versus absorbance curves.

To save valuable laboratory benchtop space, the HI83300 doubles as a professional pH meter with its digital pH/temperature electrode input. Now one meter can be used for both photometric and pH measurements.



- **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
- **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
- **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



HI83300-11

Parameter	Range	Resolution	Accuracy (@ 25°C)	LED (▲ nm) with Narrow Band Interference Filter	Method	Reagent Code
Alkalinity	0 to 500 mg/L (as CaCO ₃)	1 mg/L	±5 mg/L ±5% of reading	@ 610 nm	bromocresol green	HI775-26 25 tests
Alkalinity, Marine	0 to 300 mg/L (as CaCO ₃)	1 mg/L	±5 mg/L ±5% of reading	@ 610 nm	bromocresol green	HI755-26 25 tests
Aluminum	0.00 to 1.00 mg/L (as Al ³⁺)	0.01 mg/L	±0.04 mg/L ±4% of reading	@ 525 nm	aluminon	HI93712-01 100 tests
Ammonia LR	0.00 to 3.00 mg/L (as NH ₃ -N)	0.01 mg/L	±0.04 mg/L ±4% of reading	@ 420 nm	Nessler	HI93700-01 100 tests
Ammonia MR	0.00 to 10.00 mg/L (as NH ₃ -N)	0.01 mg/L	±0.05 mg/L ±5% of reading	@ 420 nm	Nessler	HI93715-01 100 tests
Ammonia HR	0.0 to 100.0 mg/L (as NH ₃ -N)	0.1 mg/L	±0.5 mg/L ±5% of reading	@ 420 nm	Nessler	HI93733-01 100 tests
Bromine	0.00 to 8.00 mg/L (as Br ₂)	0.01 mg/L	±0.08 mg/L ±3% of reading	@ 525 nm	DPD	HI93716-01 100 tests
Calcium	0 to 400 mg/L (as Ca ²⁺)	1 mg/L	±10 mg/L ±5% of reading	@ 466 nm	oxalate	HI937521-01 50 tests
Calcium, Marine	200 to 600 mg/L (as Ca ²⁺)	1 mg/L	±6% of reading	@ 610 nm	zincon	HI758-26 25 tests
Chloride	0.0 to 20.0 mg/L (as Cl ⁻)	0.1 mg/L	±0.5 mg/L ±6% of reading	@ 466 nm	mercury (II) thiocyanate	HI93753-01 100 tests
Chlorine Dioxide	0.00 to 2.00 mg/L (as ClO ₂)	0.01 mg/L	±0.10 mg/L ±5% of reading	@ 575 nm	chlorophenol red	HI93738-01 100 tests
Chlorine Dioxide, Rapid	0.00 to 2.00 mg/L (as ClO ₂)	0.01 mg/L	±0.10 mg/L ±5% of reading	@ 525 nm	DPD-Glycine	HI96779-01 100 tests
Chlorine, Free	0.00 to 5.00 mg/L (as Cl ₂)	0.01 mg/L	±0.03 mg/L ±3% of reading	@ 525 nm	DPD	HI93701-01 100 tests
Chlorine, Free ULR	0.000 to 0.500 mg/L (as Cl ₂)	0.001 mg/L	±0.020 mg/L ±3% of reading	@ 525 nm	DPD	HI95762-01 100 tests
Chlorine, Total	0.00 to 5.00 mg/L (as Cl ⁻)	0.01 mg/L	±0.03 mg/L ±3% of reading	@ 525 nm	DPD	HI93711-01 100 tests
Chlorine, Total ULR	0.000 to 0.500 mg/L (as Cl ₂)	0.001 mg/L	±0.020 mg/L ±3% of reading	@ 525 nm	DPD	HI95761-01 100 tests
Chlorine, Total UHR	0 to 500 mg/L (as Cl ₂)	1 mg/L	±3 mg/L ±3% of reading	@ 525 nm	iodometric	HI95771-01 100 tests
Chromium(VI) LR	0 to 300 µg/L (as Cr ⁶⁺)	1 µg/L	±10 µg/L ±4% of reading	@ 525 nm	diphenylcarbohydrazide	HI93749-01 100 tests
Chromium(VI) HR	0 to 1000 µg/L (as Cr ⁶⁺)	1 µg/L	±5 µg/L ±4% of reading	@ 525 nm	diphenylcarbohydrazide	HI93723-01 100 tests
Color of Water	0 to 500 PCU (Platinum Cobalt Units)	1 PCU	±10 PCU ±5% of reading	@ 420 nm	colorimetric platinum cobalt	
Copper LR	0.000 to 1.500 mg/L (as Cu ²⁺)	0.001 mg/L	±0.010 mg/L ±5% of reading	@ 575 nm	bicinchoninate	HI95747-01 100 tests
Copper HR	0.00 to 5.00 mg/L (as Cu ²⁺)	0.01 mg/L	±0.02 mg/L ±4% of reading	@ 575 nm	bicinchoninate	HI93702-01 100 tests
Cyanuric Acid	0 to 80 mg/L (as CYA)	1 mg/L	±1 mg/L ±15% of reading	@ 525 nm	turbidimetric	HI93722-01 100 tests
Fluoride LR	0.00 to 2.00 mg/L (as F ⁻)	0.01 mg/L	±0.03 mg/L ±3% of reading	@ 575 nm	SPADNS	HI93729-01 100 tests
Fluoride HR	0.0 to 20.0 mg/L (as F ⁻)	0.1 mg/L	±0.5 mg/L ±3% of reading	@ 575 nm	SPADNS	HI93739-01 100 tests
Hardness, Calcium	0.00 to 2.70 mg/L (as CaCO ₃)	0.01 mg/L	±0.11 mg/L ±5% of reading	@ 525 nm	calmagite	HI93720-01 100 tests
Hardness, Magnesium	0.00 to 2.00 mg/L (ppm) (as CaCO ₃)	0.01 mg/L	±0.11 mg/L ±5% of reading	@ 525 nm	calmagite	HI93719-01 100 tests
Hardness, Total LR	0 to 250 mg/L (as CaCO ₃)	1 mg/L	±5 mg/L ±4% of reading	@ 466 nm	calmagite	HI93735-00 100 tests
Hardness, Total MR	200 to 500 mg/L (as CaCO ₃)	1 mg/L	±7 mg/L ±3% of reading	@ 466 nm	calmagite	HI93735-01 100 tests
Hardness, Total HR	400 to 750 mg/L (as CaCO ₃)	1 mg/L	±10 mg/L ±2% of reading	@ 466 nm	calmagite	HI93735-02 100 tests
Hydrazine	0 to 400 µg/L (as N ₂ H ₄)	1 µg/L	±4% of full scale reading	@ 466 nm	p-Dimethylaminobenzaldehyde	HI93704-01 100 tests
Iodine	0.0 to 12.5 mg/L (as I ₂)	0.1 mg/L	±0.1 mg/L ±5% of reading	@ 525 nm	DPD	HI93718-01 100 tests
Iron LR	0.000 to 1.600 mg/L (as Fe)	0.001 mg/L	±0.01 mg/L ±8% of reading	@ 575 nm	TPTZ	HI93746-01 50 tests
Iron HR	0.00 to 5.00 mg/L (as Fe)	0.01 mg/L	±0.04 mg/L ±2% of reading	@ 525 nm	phenanthroline	HI93721-01 100 tests
Iron (II) (ferrous)	0.00 to 6.00 mg/L Fe ²⁺	0.01 mg/L	±0.10 mg/L ±2% of reading	@ 525 nm	phenanthroline	HI96776-01 100 tests
Iron (II)/(III) (ferrous and ferric)	0.00 to 6.00 mg/L Fe	0.01 mg/L	±0.10 mg/L ±2% of reading	@ 525 nm	phenanthroline	HI96777-01 100 tests
Magnesium	0 to 150 mg/L (as Mg ²⁺)	1 mg/L	±5 mg/L ±3% of reading	@ 466 nm	calmagite	HI937520-01 50 tests
Manganese LR	0 to 300 µg/L (as Mn)	1 µg/L	±10 µg/L ±3% of reading	@ 575 nm	PAN	HI93748-01 50 tests
Manganese HR	0.0 to 20.0 mg/L (as Mn)	0.1 mg/L	±0.2 mg/L ±3% of reading	@ 525 nm	periodate	HI93709-01 100 tests
Molybdenum	0.0 to 40.0 mg/L (as Mo ⁶⁺)	0.1 mg/L	±0.3 mg/L ±5% of reading	@ 420 nm	mercaptoacetic acid	HI93730-01 100 tests
Nickel LR	0.000 to 1.000 mg/L (as Ni)	0.001 mg/L	±0.010 mg/L ±7% of reading	@ 575 nm	PAN	HI93740-01 50 tests
Nickel HR	0.00 to 7.00 g/L (as Ni)	0.01 g/L	±0.07g/L ±4% of reading	@ 575 nm	photometric	HI93726-01 100 tests
Nitrate	0.0 to 30.0 mg/L (as NO ₃ ⁻ N)	0.1 mg/L	±0.5 mg/L ±10% of reading	@ 525 nm	cadmium reduction	HI93728-01 100 tests
Nitrite ULR, Marine	0 to 200 µg/L (as NO ₂ ⁻ N)	1 µg/L	±10 µg/L ±4% of reading	@ 466 nm	diazotization	HI764-25 25 tests
Nitrite LR	0 to 600 µg/L (as NO ₂ ⁻ N)	1 µg/L	±20 µg/L ±4% of reading	@ 466 nm	diazotization	HI93707-01 100 tests
Nitrite HR	0 to 150 mg/L (as NO ₂ ⁻ N)	1 mg/L	±4 mg/L ±4% of reading	@ 575 nm	ferrous sulfate	HI93708-01 100 tests
Oxygen, Dissolved	0.0 to 10.0 mg/L (as O ₂)	0.1 mg/L	±0.4 mg/L ±3% of reading	@ 420 nm	Winkler	HI93732-01 100 tests
Oxygen Scavengers	0.00 to 1.50 mg/L (as Carbohydrazide)	0.01 mg/L	±0.02 µg/L ±3% of reading	@ 575 nm	iron reduction	HI96773-01 100 tests
Oxygen Scavengers	0 to 1000 µg/L (as DEHA)	1 µg/L	±5 µg/L ±5% of reading	@ 575 nm	iron reduction	HI96773-01 100 tests
Oxygen Scavengers	0.00 to 2.50 mg/L (as Hydroquinone)	0.01 mg/L	±0.04 µg/L ±3% of reading	@ 575 nm	iron reduction	HI96773-01 100 tests
Oxygen Scavengers	0.00 to 4.50 mg/L (as Iso-ascorbic acid)	0.01 mg/L	±0.03 µg/L ±3% of reading	@ 575 nm	iron reduction	HI96773-01 100 tests
Ozone	0.00 to 2.00 mg/L (as O ₃)	0.01 mg/L	±0.02 mg/L ±3% of reading	@ 525 nm	DPD	HI93757-01 100 tests
pH	6.5 to 8.5 pH	0.1 pH	±0.1 pH	@ 525 nm	phenol red	HI93710-01 100 tests
Phosphate ULR, Marine	0 to 200 µg/L (as P)	1 µg/L	±5 µg/L ±5% of reading	@ 610 nm	ascorbic acid	HI774-25 25 tests
Phosphate LR	0.00 to 2.50 mg/L (ppm)	0.01 mg/L	±0.04 mg/L ±4% of reading	@ 610 nm	ascorbic acid	HI93713-01 100 tests
Phosphate HR	0.0 to 30.0 mg/L (as PO ₄ ³⁻)	0.1 mg/L	±1 mg/L ±4% of reading	@ 525 nm	amino acid	HI93717-01 100 tests
Potassium	0.0 to 20.0 mg/L (as K)	0.1 mg/L	±3.0 mg/L ±7% of reading	@ 466 nm	turbidimetric tetraphenylborate	HI93750-01 100 tests
Silica LR	0.00 to 2.00 mg/L (as SiO ₂)	0.01 mg/L	±0.03 mg/L ±3% of reading	@ 610 nm	heteropoly blue	HI93705-01 100 tests
Silica HR	0 to 200 mg/L (as SiO ₂)	1 mg/L	±1 mg/L ±5% of reading	@ 466 nm	molybdosilicate	HI96770-01 100 tests
Silver	0.000 to 1.000 mg/L (as Ag)	0.001 mg/L	±0.020 mg/L ±5% of reading	@ 575 nm	PAN	HI93737-01 50 tests
Sulfate	0 to 150 mg/L (as SO ₄ ²⁻)	1 mg/L	±5 mg/L ±3% of reading	@ 466 nm	turbidimetric	HI93751-01 100 tests
Surfactants, Anionic	0.00 to 3.50 mg/L (as SDBS)	0.01 mg/L	±0.04 mg/L ±3% of reading	@ 610 nm	methylene blue	HI95769-01 100 tests
Zinc	0.00 to 3.00 mg/L (as Zn)	0.01 mg/L	±0.03 mg/L ±3% of reading	@ 575 nm	zincon	HI93731-01 100 tests
Ordering Information	HI83300-01 (115V) and HI83300-02 (230V) is supplied with sample cuvettes and caps (4 ea.), cloth for wiping cuvettes, USB to micro USB cable connector, power adapter, instrument quality certificate, and instruction manual.					
Standards	HI83300-11 CAL Check Cuvette Kit for HI83300					