HI83214

COD Meter and Multiparameter Photometer

for Wastewater Analysis

Application Designed Photometers

- Backlit Graphic LCD Display
- Data Logging
  - Users can store up to 200 readings by simply pressing the LOG key. Logged readings are recalled by pressing the dedicated RCL button. Stored data includes parameter, test results, sample number, lot number, instrument ID, date and time.
- PC Connectivity
- Result Conversion
  - Eliminates confusion by automatically converting readings to other chemical forms. Common conversions are available at the touch of a button.
- On-screen Tutorial
- Built-in Timer
  - Display of time remaining before a measurement is taken. Ensures that all readings are taken at the appropriate reaction intervals for the test being performed.
- Error Messages
  - Messages on display alerting to problems including no cap, high zero, and standard too low.
- Cooling Lamp Indicator
  - To maintain the desirable wavelength to be used for absorbance, it is necessary to ensure components are not overheated from the heat generated by the tungsten lamp. Each photometer is designed to allow a minimal amount of time for components to cool.

From ammonia to phosphorus, the HI83214 benchtop photometer offers 15 measurement methods for different key water quality parameters including chemical oxygen demand (COD) in 3 different ranges. This photometer features an advanced optical system that uses special tungsten lamps, narrow band interference filters, and silicon photodetectors to ensure accurate photometric readings every time. The HI83214 uses a graphic backlit LCD that allows for an intuitive user interface, offering a tutorial mode that gives a step-by-step procedure for performing a measurement. The result obtained can be displayed in various chemical forms based on the user's preference.

Specifications	HI83214
Light Source	tungsten lamps with narrow-band interference filters
Light Detector	silicon photocell
Environment	0 to 50°C (32 to 122°F); RH max 90% non-condensing
Power Supply	external 12 VDC power adapter
Dimensions	235 x 200 x 110 mm (9.2 x 7.87 x 4.33")
Weight	0.9 kg (2 lbs.)

COD Test	Range	Method	Reagent Code
COD LR	0 to 150 mg/L	dichromate EPA‡ dichromate mercury-free◊◊ dichromate ISO◊	**HI93754A-25** **HI93754D-25** **HI93754F-25**
COD MR	0 to 1500 mg/L	dichromate EPA‡ dichromate mercury-free◊◊ dichromate ISO◊	**HI93754B-25** **HI93754E-25** **HI93754G-25**
COD HR	0 to 15000 mg/L	dichromate	**HI93754C-25**

Parameter	Range	Method	Reagent Code
Ammonia, LR	0.00 to 3.00 mg/L	Nessler	**HI93764A-25**
Ammonia, HR	0 to 100 mg/L	Nessler	**HI93764B-25**
Chlorine, Free	0.00 to 5.00 mg/L	DPD	**HI93701-01, HI93701-03**
Chlorine, Total	0.00 to 5.00 mg/L	DPD	**HI93711-01, HI93711-03**
Nitrate	0.0 to 30.0 mg/L	chromotropic acid	**HI93766-50**
Nitrogen, Total	0.0 to 25.0 mg/L	chromotropic acid	**HI93767A-50**
Nitrogen, Total HR	10 to 150 mg/L	chromotropic acid	**HI93767B-50**
Phosphorus, Reactive	0.00 to 5.00 mg/L	ascorbic acid	**HI93758A-50**
Phosphorus, Acid Hydrolyzable	0.00 to 5.00 mg/L	ascorbic acid	**HI93758B-50**
Phosphorus, Total	0.00 to 3.50 mg/L	ascorbic acid	**HI93758C-50**
Phosphorus, Reactive HR	0.0 to 100.0 mg/L	vanadomolybdophosphoric acid	**HI93763A-50**
Phosphorus, Total HR	0.0 to 100.0 mg/L	vanadomolybdophosphoric acid	**HI93763B-50**
Ordering Information	**HI83214-01** (115V) and **HI83214-02** (230V) is supplied with glass cuvettes (5), 9V batteries (2), 12 VDC adapter and instructions		

Notes:
‡ Method with chromium-sulfuric acid is officially recognized by EPA for wastewater analysis.
◊ The HI93754F-25 and HI93754G-25 method follows the official method ISO 15705.
◊◊ This method is recommended for general purpose analysis with no chloride interference.