

HI 83414 • Turbidity and Free/Total Chlorine Benchtop Meter, EPA Compliant



HI 731331



HI 731318



HI 92000

ORDERING INFORMATION

HI 83414-01 (115V) and HI 83414-02 (230V) are supplied with sample cuvettes and caps (5), calibration cuvettes for turbidimeter and colorimeter (HI 83414-11), silicone oil (HI 93703-58), tissue for wiping cuvettes, scissors, power cord and instruction manual.

REAGENTS AND STANDARDS

- HI 93414-11 CAL CHECK™ Calibration set for free & total chlorine
 HI 93701-01 Reagents for 100 free chlorine tests
 HI 93701-03 Reagents for 300 free chlorine tests
 HI 93711-01 Reagents for 100 total chlorine tests
 HI 93711-03 Reagents for 300 total chlorine tests
 HI 88703-11 Turbidity calibration standards (<0.1, 15, 100, 750 and 2000 NTU)

ACCESSORIES

- HI 93703-50 Cuvette cleaning solution, 230 mL
 HI 93703-58 Silicone oil (15 mL)
 HI 731318 Tissue for wiping cuvettes (4)
 HI 731331 Glass cuvettes (4)
 HI 731335N Caps for cuvettes (4)
 HI 740234 Replacement lamp for EPA turbidimeter
 HI 92000 Windows® compatible software
 HI 920013 USB cable for PC connection

HI 83414 TURBIDITY SPECIFICATIONS	
Range–Non Ratio Mode	0.00 to 9.99; 10.0 to 40.0 NTU; 0.0 to 99.9; 100 to 268 Nephelos 0.00 to 9.80 EBC
Resolution–Non Ratio Mode	0.01; 0.1 NTU; 0.1; 1 Nephelos; 0.01 EBC
Range–Ratio Mode	0.00 to 9.99; 10.0 to 99.9; 100 to 4000 NTU 0.0 to 99.9; 100 to 26800 Nephelos 0.00 to 9.99; 10.0 to 99.9; 100 to 980 EBC
Resolution–Ratio Mode	0.01; 0.1; 1 NTU; 0.1; 1 Nephelos; 0.01; 0.1, 1 EBC
Range Selection	automatic
Accuracy @25°C/77°F	±2% of reading plus 0.02 NTU (0.15 Nephelos; 0.01 EBC) ±5% of reading above 1000 NTU (6700 Nephelos; 245 EBC)
Repeatability	±1% of reading or 0.02 NTU (0.15 Nephelos; 0.01 EBC) whichever is greater
Stray Light	< 0.02 NTU (0.15 Nephelos; 0.01 EBC)
Light Detector	silicon photocell
Method	Nephelometric method (90°) or Ratio Nephelometric Method (90° & 180°), Adaptation of the USEPA Method 108.1 and Standard Method 2130 B
Measuring Mode	normal, average, continuous
Turbidity Standards	<0.1, 15, 100, 750 and 2000 NTU
Calibration	two, three, four or five-point calibration

HI 83414 FREE AND TOTAL CHLORINE SPECIFICATIONS	
Range	Free Cl ₂ : 0.00 to 5.00 mg/L (ppm) Total Cl ₂ : 0.00 to 5.00 mg/L (ppm)
Resolution	0.01 mg/L (ppm) from 0.00 to 3.50 mg/L (ppm) 0.10 above 3.50 mg/L (ppm)
Accuracy @25°C/77°F	±0.03 mg/L or ±3% of reading (whichever is greater)
Detector	silicon photocell with 525 nm narrow band interference filters
Method	adaptation of the USEPA Method 330.5 and Standard Method 4500-Cl G.
Standards	1.00 mg/L free/total chlorine
Calibration	one-point calibration

HI 83414 GENERAL SPECIFICATIONS	
Light Source/ Life	tungsten filament lamp / greater than 100,000 readings
Display	40 x 70 mm graphic LCD (64 x 28 pixels) with backlight
Log Memory	200 records
PC Interface	USB
Environment	0°C (32°F) to 50°C (122°F); max 95% RH non-condensing
Power Supply	230 V/50 Hz or 115 V/60 Hz 20 W auto-off after 15 minutes of non-use
Dimensions	230 x 200 x 145 mm (9 x 7.9 x 5.7")
Weight	2.5 Kg (88 oz.)

Precision Turbidity Benchtop Meter, EPA Compliant



- Two measuring ranges:
Ratio turbidity, non-ratio turbidity
- Meets USEPA requirements
- GLP features
- Two, three, four or five point turbidity calibration
- USB PC connectivity
- Log up to 200 measurements
- Contextual help and tutorial mode

The HI 88703 turbidity benchtop meter is specially designed for water quality measurements, providing reliable and accurate readings on low turbidity ranges.

This instrument has an EPA compliance reading mode which rounds the reading to meet EPA reporting requirements. Alternative EBC and Nephelos measuring units are available. Depending on the measured sample and needed accuracy, normal, continuous or signal averaging measurement can be selected.

A two, three, four or five-point calibration could be performed by using the supplied standards. When user prepared standards are used, calibration points can be modified.

HI 88703 features complete GLP (Good Laboratory Practice) functions that allows traceability of the calibration conditions. The last calibration points, time and date can be checked.

Up to 200 measurements can be stored in internal memory. Data can be transferred to a PC via optional HI 920013 USB cable and HI 92000 Windows® compatible software.

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