

HI88703

Precision Turbidity Benchtop Meter

EPA Compliant



The HI88703 Precision Turbidity Benchtop Meter is specially designed for water quality measurements, providing reliable and accurate readings, especially in the low turbidity range. The instrument is based on a state-of-the-art optical system which guarantees accurate results, assures long term stability, and minimizes stray

light and color interferences. Periodic calibration with the supplied standards compensates for any variations in intensity of the tungsten lamp. The 25 mm round cuvettes composed of special optical glass guarantee the repeatability of turbidity measurements.

• EPA Compliant

- The HI88703 meets and exceeds the requirements of EPA and Standard Methods for turbidity measurements. When in EPA mode all turbidity readings are rounded accordingly to meet reporting requirements.

• Two Measurement Modes

- The HI88703 features two options for turbidity measurement: ratio and non-ratio mode. Turbidity measurements can be made in the 0.00 to 4000 NTU (Nephelometric Turbidity Units) when using the ratio mode and in the 0.00 to 40.0 NTU range when non-ratio mode is used.

• Multiple Turbidity Units of Measure

- Turbidity can be read as Nephelometric Turbidity Units (NTU), European Brewing Convention units (EBC), or Nephelos units.

• Multiple reading modes

- Normal, continuous, or signal averaging measurement reading modes available

• AMCO AEPA-1 Primary Turbidity Standard

- The AMCO AEPA-1 supplied standards are recognized as a primary standard by the USEPA. These non-toxic standards are made of styrene divinylbenzene polymer spheres that are uniform in size and density. The standards are reusable and stable with a long shelf life.

• Calibration

- The HI88703 has a powerful calibration function that compensates for lamp aging or changing. A two, three, four, or five-point turbidity calibration can be performed by using the supplied (<0.1, 15, 100, 750, and 2000 NTU) standards. Calibration points can be modified if user-prepared standards are used.

• GLP Data

- The HI88703 features complete GLP (Good Laboratory Practice) functions that allow traceability of the calibration conditions. Data includes calibration points, date, and time.

- **Data Logging**
 - Up to 200 measurements can be stored in the internal memory and recalled at any time.
- **Data Transfer**
 - For further storage or analysis options, logged data can be downloaded to a Windows compatible PC using the USB port and the HI92000 software.
- **Tutorial Mode**
 - The unique tutorial mode provides additional information to help the user during measurements. When enabled, the instrument displays explanations and a confirmation button when a preparation or other operation has to be performed.
- **Contextual Help**
 - Contextual help is always available through a dedicated HELP button. Clear tutorial messages and directions are available on-screen to quickly and easily guide users through setup and calibration. The help information displayed is relative to the setting/option being viewed.
- **Backlit Graphic LCD Display**
 - A graphic LCD display provides an easy to understand, user-friendly interface. All messages are in plain text making them easy to read.

Specifications

HI88703

Non-ratio Mode	Range	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	0.01; 0.1 NTU; 0.1; 1 Nephelos; 0.01 EBC
Ratio Mode	Range	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	0.01; 0.1; 1 NTU; 0.1; 1 Nephelos; 0.01; 0.1, 1 EBC
Additional Specifications	Range Selection	automatic
	Accuracy	±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
	Light Source/ Life	tungsten filament lamp / greater than 100,000 readings
	Display	40 x 70 mm graphic LCD (64 x 128 pixels) with backlight
	Method	nephelometric method (90°) or ratio nephelometric method (90° & 180°), adaptation of the USEPA method 180.1 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
	Log Memory	200 records
	PC Interface	USB
	Environment	0 to 50°C (32 to 122°F); max 95% RH non-condensing
	Power Supply	230/115 Vac; 50/60 Hz
Dimensions	230 x 200 x 145 mm (9 x 7.9 x 5.7")	
Weight	2.5 kg (88 oz.)	
Ordering Information	HI88703-01 (115V) and HI88703-02 (230V) is supplied with sample cuvettes and caps (5), calibration cuvettes (HI88703-11), silicone oil (HI98703-58), cuvette wiping cloth, power cord and instruction manual.	

HI98703

Turbidity Meter

Fast Tracker™ Technology,
EPA Compliant

The HI98703 Precision Turbidity Portable Meter is specially designed for water quality measurements, providing reliable and accurate readings, especially in the low turbidity range. The instrument is based on a state-of-the-art optical system which guarantees accurate results, assures long term stability, and minimizes stray light and color interferences. Periodic calibration with the supplied standards compensates for any variations in intensity of the tungsten lamp. The 25 mm round cuvettes composed of special optical glass guarantee the repeatability of turbidity measurements.



- **Multiple reading modes**

- Normal measurement, continuous measurement, or signal averaging measurement are reading modes available.

- **EPA Compliant Measurement**

- The HI98703 meets and exceeds the requirements of EPA and Standard Methods for turbidity measurements. When the meter is in EPA mode all turbidity readings are rounded accordingly to meet reporting requirements.

- **Calibration**

- A two, three, or four-point turbidity calibration can be performed by using the supplied (<0.1, 15, 100, and 750 NTU) standards. Calibration points can be modified if user-prepared standards are used.

- **AMCO AEPA-1 Primary Turbidity Standard**

- The AMCO AEPA-1 supplied standards are recognized as a primary standard by the USEPA. These non-toxic standards are made of styrene divinylbenzene polymer spheres that are uniform in size and density. The standards are reusable and stable with a long shelf life.

- **GLP Data**

- The HI98703 features complete GLP (Good Laboratory Practice) functions that allow traceability of the calibration conditions. Data includes calibration points, date, and time.

- **Data Logging**

- Up to 200 measurements can be stored in the internal memory and recalled at any time.

- **Data Transfer**

- For further storage or analysis options, logged data can be downloaded to a Windows compatible PC using the RS232 or USB port and the HI92000 software.

- **Backlit Display**

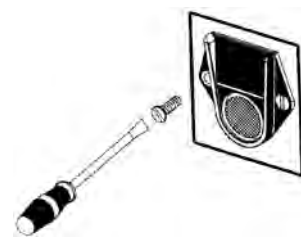
- A backlit LCD display provides an easy to understand, user-friendly interface. Displayed codes guide the user step-by-step through routine operation and calibration.



HI920005 Tag holders with tags (5)

Fast Tracker™

For advanced field applications, the HI98703 is equipped with Fast Tracker™ Tag Identification System (T.I.S.) that makes data collecting and management simpler than ever. Fast Tracker™ allows users to record the time and location of a specific measurement or series of measurements using iButton® tags near sampling points for quick and easy readings. Each iButton® tag contains a computer chip with a unique identification code encased in stainless steel.



iButton® Tags are Easy to Install

Install tags near your sampling points for quick and easy iButton® readings. Each tag contains a computer chip with a unique identification code encased in stainless steel. You can install a practically unlimited amount of tags.

Specifications	HI98703
Range	0.00 to 1000 NTU
Range Selection	automatic
Resolution	0.01 (0.00 to 9.99 NTU); 0.1 (10.0 to 99.9 NTU); 1 (100 to 1000 NTU)
Accuracy	±2% of reading plus 0.02 NTU
Repeatability	±1% of reading or 0.02 NTU, whichever is greater
Stray Light	< 0.02 NTU
Light Detector	silicon photocell
Light Source	tungsten filament lamp
Lamp Life	greater than 100,000 readings
Method	ratio nephelometric method (90° and 180°), ratio of scattered and transmitted light; adaptation of the USEPA method 180.1 and standard method 2130 B
Measuring mode	normal, average, continuous
Turbidity Standards	<0.1, 15, 100 and 750 NTU
Calibration	two, three or four-point calibration
Log Memory	200 records
Serial Interface	USB or RS232
Environment	0 to 50°C (32 to 122°F); RH max 95% non-condensing
Power Supply	1.5V AA alkaline batteries (4) or AC adapter; auto-off after 15 minutes of non-use
Dimensions / Weight	224 x 87 x 77 mm (8.8 x 3.4 x 3.0") / 512 g (18 oz.)
Ordering Information	HI98703-01 (115V) and HI98703-02 (230V) are supplied with sample cuvettes and caps (5), calibration cuvettes, silicone oil (HI98703-5B), cuvette wiping cloth, batteries, AC adapter, instruction manual and rugged carrying case.

