2100Q & 2100Q*is* PORTABLE TURBIDIMETER

Applications

- Drinking Water
- Wastewater
- Beverage
- Field Use
- Food QC Lab
- Industrial Water
- Power

Easiest calibration and verification with accurate results every time.

The Hach 2100Q and 2100Q*is* Portable Turbidimeters offer unsurpassed ease of use and accuracy in turbidity measurement. Only Hach offers this combination of advanced features including assisted calibration, simplified data transfer, and innovative measurement techniques that give you accurate results every time.

Easy On-Screen Assisted Calibration and Verification

The 2100Q Portable Turbidimeter provides confidence your measurements are right every time. On-screen assisted calibration and verification save you time and ensure accuracy. With an easy-to-follow interface, complicated manuals are not needed to perform routine calibrations. Single-standard RapidCal™ calibration offers a simplified solution for low level measurements.

Simple Data Transfer

Customizable power and connectivity modules provide smooth data transfer and flexibility. Optional USB+Power Module allows data download to any computer via USB port, providing superior data integrity and availability.

Accuracy for Rapidly Settling Samples

The innovative Rapidly Settling Turbidity™ mode provides accurate, repeatable measurements for difficult to measure, rapidly settling samples. An exclusive algorithm that calculates turbidity based on a series of automatic readings eliminates redundant measurements and estimating.

Convenient Data Logging

Up to 500 measurements are automatically stored in the instrument for easy access and backup. Stored information includes: date and time, operator ID, reading mode, sample ID, sample number, units, calibration time, calibration status, error messages and the result.

Optical System for Precision in the Field

The two-detector optical system compensates for color in the sample, light fluctuation, and stray light, allowing you to achieve laboratory-grade performance on a wide range of samples, even under difficult site conditions.

Two Models for Specific USEPA Requirements

The 2100Q Turbidimeter is compliant with USEPA Method 180.1 design criteria. The 2100Q*is* Turbidimeter is compliant with ISO 7027 design criteria.

HACH®

Be Right™

Key Features

### On-Screen Assisted Calibration and Verification

The 2100Q gives you confidence that your results are accurate, without having to read long manuals for calibration and verification instructions. All the core measurement information is on a single screen.

On-Screen Assisted Calibration	Verification with the Push of a Button	RapidCal Single Standard Calibration

In the full calibration mode (0 to 1000 NTU), the text-based, assisted calibration feature walks you through clear and easy steps, and verifies the accuracy of your calibration automatically. This on-screen assistance eliminates the need for a manual and provides assurance that your calibration is complete and valid.
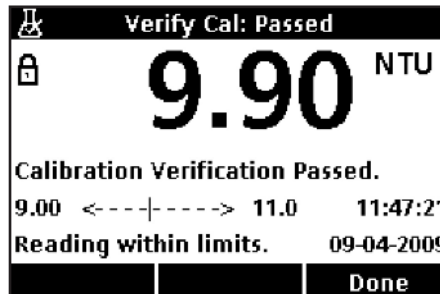
Be confident in your measurement by running the quick and easy Verify Cal function using the included 10 NTU StablCal primary standard.
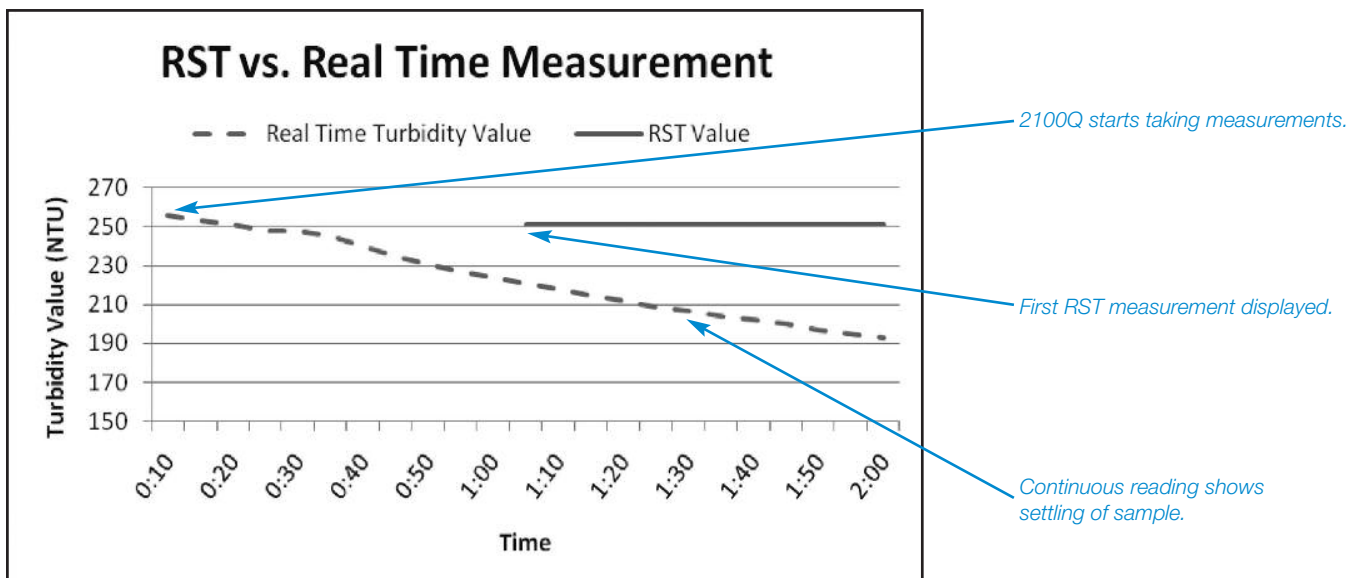
In the range up to 40 NTU, the single standard RapidCal calibration mode reduces calibration complexity by eliminating multiple standard full calibrations. You save time and ensure you meet reporting requirements.

Rapidly Settling Turbidity™ (RST) Mode

At the request of our customers, Hach has developed an innovative solution to alleviate the uncertainty caused by changing turbidity readings in samples that quickly settle. The 2100Q's RST reading mode uses an exclusive algorithm that reverse calculates and continuously updates a calculated value of turbidity to a point in time when the sample begins to settle out of solution based upon the accumulated trend of the measured values. This results in values that are more accurate and repeatable than those obtained using traditional smoothing techniques, such as averaging.

2100Q starts taking measurements.

First RST measurement displayed.

Continuous reading shows settling of sample.

Although the sample continuously settles out of solution, the RST calculated value does not change. No more guessing and no more replicate runs—you get the right answer every time.

Customize Power and Connectivity with Flexible Modules

USB+Power Module (Prod. No. LZV813)
- Line power: 110 - 230Vac, 50/60 Hz
- Charges NiMH batteries
- Transfers data to computer or printer
- Enables firmware updates

Power Only Module (Prod. No. LZV804)
- Line power: 110 - 230Vac, 50/60 Hz

Key Features

Closed cap control eliminates ambient light interference.

RST mode for precise measurement in rapidly settling samples.

User-friendly interface in 23 pre-programmed languages.

Flexible module options enable customization of power and connectivity and data storage in the module.

On-screen assisted verification ensures instrument is performing correctly.

Single standard calibration reduces calibration and handling time.

Specifications*

Measurement Method	Ratio turbidimetric determination using a primary nephelometric light scatter signal (90°) to the transmitted light scatter signal.		**Operating Conditions**	Temperature: 0 to 50°C (32 to 122°F) Relative Humidity: 0 to 90% @ 30°C, 0 to 80% @ 40°C, 0 to 70% @ 50°C, noncondensing
Regulatory	2100Q: Meets EPA Method 180.1 2100Q*is*: Meets ISO 7027		**Storage Conditions**	-40 to 60°C (-40 to 140°F), instrument only
Light Source	2100Q: Tungsten filament lamp 2100Q*is*: Light-emitting diode (LED) @ 860 nm		**Languages**	English, French, German, Italian, Spanish, Portuguese (BR), Portuguese (PT), Bulgarian, Chinese, Czech, Danish, Dutch, Finnish, Greek, Hungarian, Japanese, Korean, Polish, Romanian, Russian, Slovenian, Swedish, Turkish
Range	0 to 1000 NTU (FNU)			
Accuracy	±2% of reading plus stray light from 0 to 1000 NTU			
Repeatability	±1% of reading, or 0.01 NTU (FNU), whichever is greater		**Interface**	Optional USB
Resolution	0.01 NTU on lowest range		**Instrument Enclosure Rating**	IP67 (closed lid, battery compartment excluded)
Stray Light	<0.02 NTU (FNU)		**Protection Class**	Power Supply: Class II
Signal Averaging	Selectable on/off		**Certification**	CE certified
Detector	Silicon photovoltaic		**Sample Required**	15 mL (0.3 oz.)
Reading Modes (user selectable)	Normal (Push to Read) Signal Averaging Rapidly Settling Turbidity		**Sample Cells**	60 x 25 mm (2.36 x 1 in.) borosilicate glass with screw cap
Data Logger	500 records		**Dimensions**	22.9 x 10.7 x 7.7 cm (9.0 x4.2 x 3.0 in.)
Power Requirement	110-230 Vac, 50/60 Hz (with Power or USB+Power Module) 4 AA alkaline batteries Rechargeable NiMH (for use with USB+Power Module)		**Weight**	527 g (1.16 lb) without batteries 618 g (1.36 lb) with four AA alkaline batteries
			Warranty	1

*Subject to change without notice.

Ordering Information

Hach portable turbidimeters are supplied with four AA alkaline batteries, a carrying case with insert, StablCal primary calibration standards in 1" sealed vials (20, 100, 800 NTU), 10 NTU primary verification standard, 6 sample cells with screw-tops, instrument manual (printed and on CD-ROM), quick start guide, silicone oil and oiling cloth.

2100Q-01   2100Q Portable Turbidimeter (meets EPA method 180.1)

2100QIS-01 2100Q*is* Portable Turbidimeter (meets ISO 7027)

Optional Accessories

LZV813	USB+Power Module (includes: universal power supply, USB cables, instruction sheet)
LZV804	Power Module (includes: universal power supply, instruction sheet)
2960100	Citizen PD-24 Printer Package
2971304	Battery, NiMH AA, pk/4
4397500	Degassing Kit
4397510	Sample Filtration and Degassing Kit
2971210	StablCal 100 mL calibration kit, 2100Q
2971200	StablCal 500 mL calibration kit, 2100Q
2464105	Gelex Secondary Standard Set

Replacement Parts

2971205	StablCal ampule calibration kit, 2100Q
2961701	10 NTU Verification Standard
126936	Silicone Oil, 15 mL
2971507	Insert, molded bottom, 2100Q carrying case
4707600	Sample Cell Oiling Cloth
2434706	1" glass sample cell (10ml) w/cap (Turb) pkg/6
2971500	Carrying case for 2100Q (includes insert)
4653900	Lamp assembly
1938004	Battery set, 4x AA alkaline batteries