2100Q and 2100Q *IS* Portable Turbidimeter

The Hach 2100Q and 2100Q IS Portable Turbidimeters offer unsurpassed ease of use and accuracy in turbidity measurement. Only Hach offers this unique combination of advanced features, such as assisted calibration and simplified data transfer, and measurement innovation, giving you accurate results every time.

Features and Benefits

Easy Calibration and Verification

Hach 2100Q and 2100Q *IS* Portable Turbidimeters provide 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

Data transfer with the 2100Q is simple, flexible, and doesn't require additional software when used with the optional USB + Power module. All data can be transferred to the module and easily downloaded to your computer with a USB connection, providing superior data integrity and availability. With two different module options, you can customize connectivity and power to meet your unique needs.

Accurate for Rapidly Settling Samples

The Hach 2100Q Portable Turbidimeter incorporates an innovative Rapidly Settling Turbidity™ mode to provide 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, enabling analysts to achieve laboratory-grade performance on a wide range of samples, even under difficult site conditions.

Two Models for Specific Requirements

- **2100Q Turbidimeter**—*Compliant with USEPA Method 180.1 design criteria.*
- **2100Q *IS* Turbidimeter**—*Compliant with ISO 7027 design criteria.*

Key Features

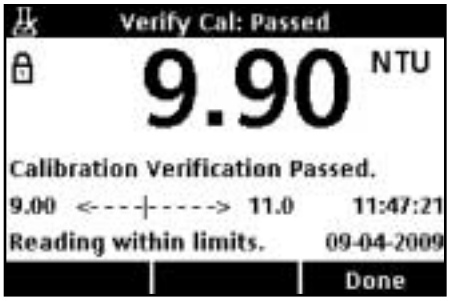
On-Screen Assisted Calibration and Verification

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

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.

Verification with the Push of a Button



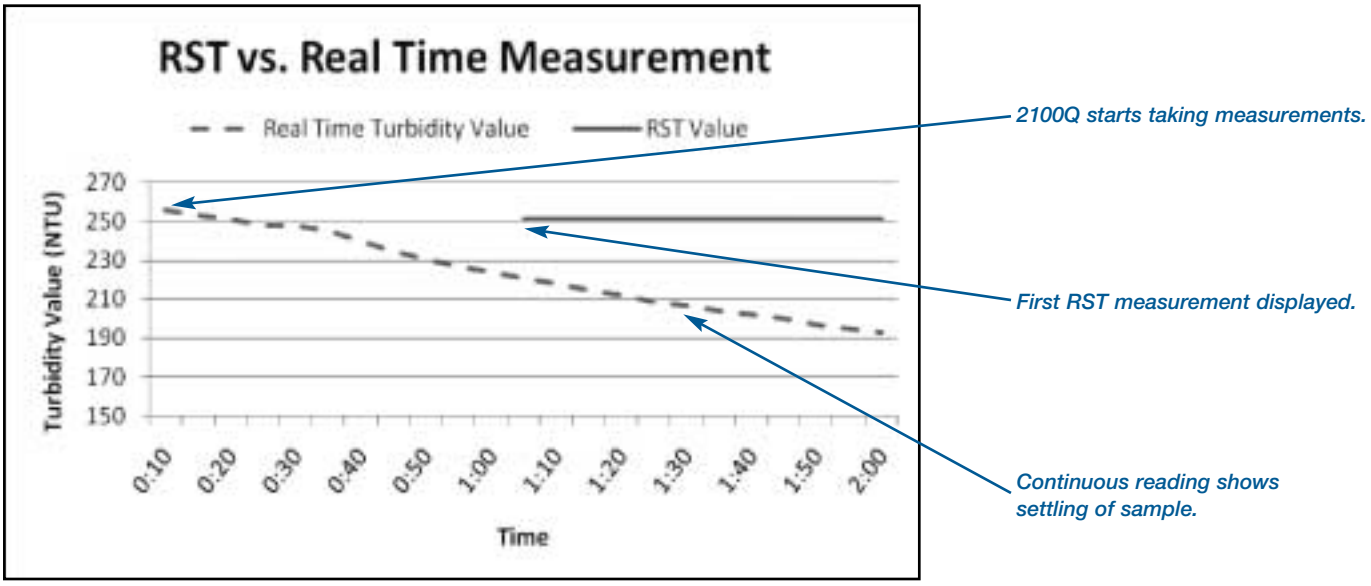
Be confident in your measurement by running the quick and easy Verify Cal function using the included 10 NTU StablCal primary standard.

RapidCal Single Standard Calibration

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.



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
- Data transfer to computer without additional software
- Enables firmware updates

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

Key Features

Specifications*

Measurement Method
Ratio turbidimetric determination using a primary nephelometric light scatter signal (90°) to the transmitted light scatter signal.

Regulatory
2100Q: Meets EPA Method 180.1
2100Q *IS:* Meets ISO 7027

Light Source
2100Q: Tungsten filament lamp
2100Q *IS:* Light-emitting diode (LED) @ 860 nm

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

Resolution
0.01 NTU on lowest range

Stray Light
<0.02 NTU (FNU)

Signal Averaging
Selectable on/off

Detector
Silicon photovoltaic

Reading Modes (user selectable)
Normal (Push to Read)
Signal Averaging
Rapidly Settling Turbidity

Data Logger
500 records

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)

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

Storage Conditions
-40 to 60°C (-40 to 140°F), instrument only

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

Interface
Optional USB

Instrument Enclosure Rating
IP67 (closed lid, battery compartment excluded)

Protection Class
Power Supply: Class II

Certification
CE certified

Sample Required
10 mL (0.3 oz.)

Sample Cells
60 x 25 mm (2.36 x 1 in.) borosilicate glass with screw cap

Dimensions
22.9 x 10.7 x 7.7 cm (9.0 x4.2 x 3.0 in.)

Weight
527 g (1.16 lb) without batteries
618 g (1.36 lb) with four AA alkaline batteries

Warranty
1 year

**Specifications 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 cable, instruction sheet)

LZV804 Power module
(includes: universal power supply, instruction sheet)

2971304 Battery, NiMH AA, pk/4

4397500 Degassing Kit

4397510 Sample Filtration and Degassing Kit

2971210 StablCal 100mL calibration kit, 2100Q

2971200 StablCal 500mL 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

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

Other Hach Turbidimeters...

2100N and 2100AN Turbidimeters

(see Lit. #2498)

Hach laboratory turbidimeters include the 2100N and 2100AN Turbidimeters, which meet USEPA Method 180.1 standards, and the 2100N IS and the 2100AN IS Turbidimeters, which meet ISO 7027 standards. All four models offer wide measurement range, ease of calibration, and the application flexibility required for demanding laboratory use.

On-line Turbidimeters

Hach also offers a complete line of advanced, on-line turbidimeters for process monitoring. Please contact Hach or your representative for more information.

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At Hach, it's about learning from our customers and providing the right answers. It's more than ensuring the quality of water—it's about ensuring the quality of life. When it comes to the things that touch our lives...

Keep it pure.

Make it simple.

Be right.

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