2100Q & 2100Qis PORTABLE TURBIDIMETER



Applications

- Drinking Water
- Wastewater
- Beverage
- Field Use
- Food QC LabIndustrial Water
- Power



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Easiest calibration and verification with accurate results every time.

The Hach 2100Q and 2100Qis 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 $^{\text{TM}}$ 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 2100Qis Turbidimeter is 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



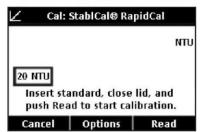
In the full calibration mode (0 to 1000 NTU), the text-based, assisted calibration feature walks you through clear and easy steps, and verifies the accuracy of your calibration automatically. This on-screen assistance eliminates the need for a manual and provides assurance that your calibration is complete 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.

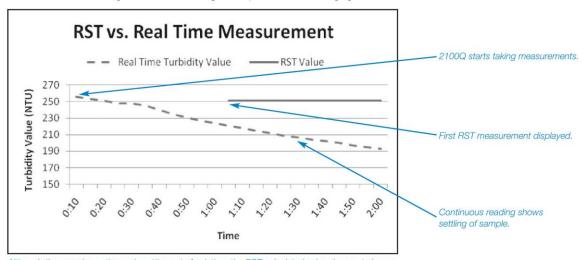
RapidCal Single Standard Calibration



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
- Transfers data to computer or printer
- Enables firmware updates

Power Only Module (Prod. No. LZV804)

• Line power: 110 - 230Vac, 50/60 Hz



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شركت ابزار طه تهران، خيابان مطهري، خيابان فجر، يلاك 38 021-88832100 021-88321727 021-88321728





Specifications*

Measurement Method	Ratio turbidimetric determination

using a primary nephelometric light scatter signal (90°) to the transmitted

light scatter signal.

2100Q: Meets EPA Method 180.1 Regulatory

2100Qis: Meets ISO 7027

Light Source 2100Q: Tungsten filament lamp

2100Qis: Light-emitting diode (LED)

@ 860 nm

Range 0 to 1000 NTU (FNU)

±2% of reading plus stray light Accuracy

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**

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

500 records **Data Logger**

110-230 Vac, 50/60 Hz (with Power **Power Requirement**

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 15 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

*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 2100Qis 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







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021-88832100 021-88321727 021-88321728



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HACH COMPANY World Headquarters: Loveland, Colorado USA

 United States:
 800-227-4224 tel
 970-669-2932 fax
 orders@hach.com

 Outside United States:
 970-669-3050 tel
 970-461-3939 fax
 int@hach.com

hach.com

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