**OAKTON® T-100 Waterproof Turbidity Meter**

Waterproof and dustproof with IP67-rated housing that floats!

* Meets performance criteria as specified by ISO 1727 (DIN EN 27027) method
* Compliant with ASTM D6855-03 (EPA recognized)
* Four-point, push-button calibration for full-range accuracy
* Auto-ranging from 0 to 1000 nephelometric turbidity units

The Oakton T-100 turbidity meter is easy to calibrate - meter automatically prompts you to the next calibration standard. The large custom LCD displays reading and units of measure. Other features include auto-off, diagnostic error messages, and auto-ranging function. Power-saving function lets you take over 1000 readings on a single set of AAA batteries.

**Includes**: four primary standards (0.02, 20.0, 100, and 800 NTU), three empty cuvettes with lightshield caps, silicone oil, lint-free cloth, four AAA batteries, and hard carrying case.

**Specifications**

| Accuracy: ±2% of reading from 0 to 500 NTU; ±3% of reading 500 to 1000 NTU |
| Range: 0 to 19.99; 20.0 to 99.9; 100 to 1000 NTU |
| Response time: less than 6 seconds |
| Light source: infrared LED |
| Operating ambient: 32 to 122°F (0 to 50°C) |
| Resolution: 0.01, 0.1, 1 |
| Display: 14-segment LCD |
| Sample volume: 10 mL |
| Dimensions (L x W x H): 6½” x 2¾” x 2” (16.5 x 7.0 x 5.1 cm) |

**Catalog number**

<table>
<thead>
<tr>
<th>Description</th>
<th>Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>2299012</td>
<td>Oakton T-100 waterproof turbidity meter</td>
</tr>
<tr>
<td>1100760</td>
<td>Replacement batteries; 1.5 V, AAA. Pack of 12</td>
</tr>
</tbody>
</table>

**LaMotte® Handheld Turbidity Meters**

Redesigned for higher accuracy and wider range

* Advanced microprocessor offers high-accuracy readings
* Available with either EPA- or ISO-compliant optical systems
* Battery operated for field and on-site testing convenience

Test municipal waters, food and beverage waters, or any aqueous solution where fluid clarity is important. These compact portable meters are equipped with a unique optics configuration to read low turbidity levels down to 0.05 NTU and high levels up to 4000 NTU. Large, menu-driven LCD features five measuring units, seven user-selectable languages, data logging capabilities to 500 points, and USB interface for downloading data to your computer.

**Includes**: 60 mL each of 0, 1, and 10 NTU standards; plastic sample bottle; four glass sample vials; USB cable and wall plug; and waterproof plastic carrying case.
**Specifications**

- **Units of measure:** NTU, FNU, FAU, ASBC, EBC, AU
- **Accuracy:** ±2% from 0 to 100 NTU; ±3% from 100 to 4000 NTU
- **Dimensions (L x W x H):** 7⅝” x 3⅝” x 2⅜” (19.1 x 8.9 x 6.4 cm)
- **Sample cell size:** 25 mm dia, flat-bottom tube
- **Operating ambient:** 32 to 122°F (0 to 50°C) noncondensing
- **Datalogging capabilities:** 500 points

<table>
<thead>
<tr>
<th>Light source</th>
<th>U.S. EPA model 2265928: tungsten lamp</th>
<th>ISO model 2344172: 860 nm LED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resolution</td>
<td>0.01 NTU/FNU from 0.00 to 10.99, 0.1 NTU/FNU from 11.0 to 109.9, 1 NTU/FNU from 110 to 4000</td>
<td></td>
</tr>
</tbody>
</table>

**Catalog number**

<table>
<thead>
<tr>
<th>2265928</th>
<th>Portable turbidity meter, U.S. EPA 180.1 compliant</th>
</tr>
</thead>
<tbody>
<tr>
<td>2344172</td>
<td>Portable turbidity meter, ISO 7027 compliant</td>
</tr>
</tbody>
</table>

**Power**

- Rechargeable lithium battery (included) and wall plug

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**Hach® 2100Q Portable Turbidity Meter**

**Easy-to-follow interface with on-screen prompts simplifies calibration and verification**

- Innovative Rapidly Settling Turbidity™ (RST) mode allows for accurate and repeatable measurement of rapidly settling samples - eliminating guesswork or duplicate runs
- Meets or exceeds design and performance criteria as specified in U.S. EPA method 180.1
- Customizable power and connectivity options add versatility

This portable turbidity meter features a unique optical system that compensates for potential interferences, making it ideal for field or lab use. Intuitive user interface prompts you during calibration and verification for hassle-free setup. On-screen assistance eliminates the need to page through manuals for help.

Unique RST mode reduces measurement uncertainty caused by changing turbidity values in settling samples. RST mode measurements are ultimately more accurate and repeatable than those obtained by traditional smoothing techniques, such as averaging.

Additional meter features include 23 pre-programmed menu languages, time-and-date stamped readings, and closed cap control which helps eliminate stray light interference. Optional power and output modules allow for user customizability.

**Includes:** StabCal™ primary calibration standards in 1” sealed vials (20, 100, 800 NTU), six sample cells, 10 NTU primary verification standard, silicone oil, oiling cloth, four alkaline AA batteries, and carrying case.

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**Specifications**

- **Range:** 0 to 1000 NTU
- **Response time:** mode dependent
- **Light source:** tungsten filament lamp
- **Operating ambient:** 30 to 50°C (32 to 122°F)
- **Resolution:** 0.01 NTU on lowest range
- **Display:** 14-digit LCD
- **Sample volume:** 10 mL
- **Dimensions (L x W x H):** 9” x 4⅛” x 3” (22.9 x 10.7 x 7.7 cm)
- **Sample cell size:** 60 mm H x 25 mm dia
- **Datalogging capabilities:** 500 points
- **Output:** optional USB
- **Accuracy:** ±2% of reading
Turbidity

Dual LED sources for EPA- and ISO-compatible readings

- Compliant with American Society of Brewing Chemists and European Brewing Chemists methods
- Nephelometric and ratiometric measurements with autoranging capability
- Results displayed in NTU, FTU, FNU, ASBC, EBC, or %T

The Orion AQ4500 offers a dual-source LED which allows readings that comply with both EPA 180.1 and ISO 7027. In the range of 0 to 40 NTU, the AQ4500 offers a ratiometric range which will give EPA, GLI method 2 equivalent numbers.

This portable field unit features an IP67, waterproof design with typical battery life of over 1000 hours on one set of batteries, and datalog capacity of 100 points which can later be downloaded to a printer or computer.

Includes: set of four turbidity standards, four empty cuvettes, batteries, and carrying case.

Specifications

| Operating ambient: –40 to 140°F (–40 to 60°C) | Display: custom LCD | Response time: 3 second |
| Dimensions (L x W x H): 9½” x 3½” x 3” (24.1 x 8.9 x 7.6 cm) | Datalogging capabilities: 100 points | |
| Resolution: 0 to 9.99 NTU: 0.01 10 to 99.9 NTU: 0.1 | 100 to 1000 NTU: 1 | Output: RS-232 |
| Accuracy: 0 to 500 NTU: ±2% of rdg plus 0.01 NTU 500 to 1000 NTU: ±3% of rdg | Light source: white and infrared LED |
| Range: 0 to 4000 NTU | Photodetector: silicon photodiode | Sample volume: 12 mL |
| Sample cell: 24 mm |

Catalog number | Description | Power |
<table>
<thead>
<tr>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>2293818</td>
<td>2100Q portable turbidity meter</td>
<td>Four AA batteries (included) or 100 to 230 VAC, 50/60 Hz (with optional power module)</td>
</tr>
</tbody>
</table>

2317276 Replacement silicone oil, 15 mL
1717450 Degassing kit

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Thermo Scientific Orion AQ4500 Turbidimeter

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1819816 Orion AQ4500 turbidimeter

1459273 RS-232 cable
2043738 Turbidity standards kit; 0, 1, 10, 100, 1000 NTU
1149426 Replacement batteries; 1.5 V, AA. Pack of 4

Phone: 281-496-0900
sales@expotechusa.com
www.expotechusa.com
**Turbidity**

**Turbidity Standard Solutions**

**Hach StablCal® Turbidity Standard Solutions**

Offer a guaranteed stability of at least one year. Standards are referenced in U.S. EPA-accepted Hach method 8195 and meet NPDES and NPDWR\(^\dagger\) compliance reporting requirements. Available in 500-mL bottles.

<table>
<thead>
<tr>
<th>Catalog number</th>
<th>NTU value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2247056</td>
<td>&lt; 0.1</td>
</tr>
</tbody>
</table>

\(^\dagger\) NPDWR=National Primary Drinking Water Regulations, NPDES=National Pollutant Discharge Elimination System

**EPA-Recognized Turbidity Meters**

**Front-panel dials simplify your turbidity measurements**

- Additional sample cells within easy reach - stored directly on the side of the lab meters or in the case with the field meters

Use these meters to verify water cleanliness in public water systems and to control chemicals through water treatment. Other applications include chemically analyzing chlorides and other elements through controlled precipitation, checking filter efficiency, and isolating filter backwash problems. Meters measure particulate content of water in three ranges. All results are displayed in NTU on the 1/2”H (1.3 cm) LCD.

**Includes**: two primary and two secondary solutions for calibration (0.5 and 10 NTU), two sample cells, light shield, and 6-ft (1.8-m) cord with two-pronged AC adapter on 110 VAC models (European plug on 220 VAC models). Field meters also include a rugged carrying case and a permanently soldered rechargeable NiCd battery for portable use.

**Specifications**

- **Range**: 0 to 1.999, 0 to 19.99, 0 to 199.9 nephelometric turbidity units
- **Resolution**: 0.1% of range
- **Sample cell size**: 25 mm dia x 95 mm H
- **Sample volume**: 30 mL
- **Display**: 3½-digit LCD, 1/2” (1.3 cm) H
- **Photodetector**: silicon photodiode
- **Output**: none
- **Light source**: tungsten lamp

<table>
<thead>
<tr>
<th>Catalog number</th>
<th>Description</th>
<th>Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>1456156</td>
<td>Lab meter</td>
<td>110 VAC</td>
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</tbody>
</table>
HF scientific Micro 100 Laboratory Turbidimeters

Auto calibration alert ensures that your meter is calibrated for accurate measurements and simple calibration

- Quick connection lamp module for low maintenance

These turbidity meters provide accuracy and reliability. With a resolution of 0.01 nephelometric turbidity units at low turbidity readings and an extended range to 1000 NTU, these benchtop turbidity meters are an ideal and affordable tool for research, as well as routine analytical measurements. RS-232 output downloads date, time, and NTU reading - can be captured with a serial printer or data recorder.

Model with infrared light source meets international standard ISO 7027 for turbidity measurement.

Includes: one set of sealed reusable primary calibration standards (0.02, 10, and 1000 NTU), two measuring cuvettes with lightshield caps, and plug-in power adapter.

Specifications

Range: auto ranging from 0 to 1000 NTU  Operating ambient: 32 to 122°F (0 to 50°C)  Sample cell size: 28 mm dia x 70 mm H
Accuracy: ±2% of rdg plus 0.01 NTU  Sample size: 30 mL (27 mL minimum)  Output: RS-232 serial port
Resolution: 0 to 9.99 NTU: 0.01  10 to 99.9 NTU: 0.1  100 to 1000 NTU: 1  Dimensions (W x H x D): 10¾" x 10¾" x 3¾" (27.3 x 25.4 x 9.5 cm)

<table>
<thead>
<tr>
<th>Catalog number</th>
<th>Description</th>
<th>Power</th>
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</thead>
<tbody>
<tr>
<td>1392218</td>
<td>Benchtop laboratory turbidimeter</td>
<td>110 VAC</td>
</tr>
<tr>
<td>1392222</td>
<td>Replacement calibration set; 0.02, 10, and 1000 NTU</td>
<td></td>
</tr>
</tbody>
</table>

Hach® Laboratory Turbidimeters

Patented ratio optical system ensures accurate, stable readings

- Smart self-diagnostics alert you to problems including using the wrong calibration standard
- Models 1173336, and 1717447 meet U.S. EPA method 180.1

These benchtop turbidity meters offer the most versatile and advanced instruments available for nephelometric measurement. Push-button calibration and operation eliminates manual adjustments or zeroing. The patented optical system provides accurate results over a wide range of samples and turbidity, simplifying routine laboratory work.

Includes: six sample cells; 100 mL each of <0.1, 20, 200, 1000, and 4000 NTU StabiCal® stabilized formazin primary standards; silicone oil and oiling cloth; dust cover; and power cord. The deluxe meter also includes a built-in printer and a 7500 NTU StabiCal® stabilized formazin vial.
Turbidity

Standard Meter

- Wide measuring range using three selectable readout modes - 0 to 4000 nephelometric turbidity units, 0 to 26,800 NEPH (Nephelos), and 0 to 980 EBC (European Brewing Convention)
- Optional ratioing switches instrument from multidetector ratio mode to nonratio
- Signal averaging minimizes noise and display fluctuations
- Air purge system connection purges the optical compartment with dry air and minimizes condensation on the sample cell

Deluxe Meters include all the features of the standard model plus:

- A wider measuring range - 0 to 10,000 NTU, and 0 to 2450 EBC
- Programmable signal averaging
- Built-in printer and recorder output
- Four measurement modes - NTU, absorbance, percentage transmittance, and platinum and cobalt color units (1717447 only)

Specifications

Printer: built-in graphics capable 28 column (deluxe models only)
Resolution: 0.001 on lowest range
Real-time clock: timed and dated output
Sample cells: seven, 25 mm dia x 95 mm H
Photodetector: silicon photodiode

<table>
<thead>
<tr>
<th>Description</th>
<th>Standard turbidimeter</th>
<th>Deluxe turbidimeters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catalog number</td>
<td>1173336</td>
<td>1717447</td>
</tr>
<tr>
<td>Measurement modes</td>
<td>NTU, EBC, or Nephelo</td>
<td>NTU, EBC, Nephelo, ABS, %T, CU, two user-defined units</td>
</tr>
<tr>
<td>NTU mode</td>
<td>Ratio on   0 to 0.999, 0 to 9.99, 0 to 99.9, 0 to 4000</td>
<td>Ratio on 0 to 0.999, 0 to 9.99, 0 to 99.9, 0 to 10,000</td>
</tr>
<tr>
<td></td>
<td>Ratio off   0 to 40.0</td>
<td>Ratio off 0 to 40.0</td>
</tr>
<tr>
<td>Nephelometer</td>
<td>Ratio on   0 to 9.99, 0 to 99.9, 0 to 26,800</td>
<td>Ratio on 0 to 9.99, 0 to 99.9, 0 to 67,000</td>
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<tr>
<td></td>
<td>Ratio off   0 to 268</td>
<td>Ratio off 0 to 268</td>
</tr>
<tr>
<td>EBC mode</td>
<td>Ratio on   0 to 0.999, 0 to 9.99, 0 to 99.9, 0 to 980</td>
<td>Ratio on 0 to 0.999, 0 to 9.99, 0 to 99.9, 0 to 2450</td>
</tr>
<tr>
<td></td>
<td>Ratio off   0 to 9.8</td>
<td>Ratio off 0 to 9.8</td>
</tr>
<tr>
<td>Absorbance</td>
<td>—</td>
<td>Manual: 0.0 to 0.999 ABS, 0 to 2.00 ABS</td>
</tr>
<tr>
<td>Transmittance</td>
<td>—</td>
<td>Range: 0.0 to 200 %T, resolution: 0.1 %T</td>
</tr>
<tr>
<td>Color (at 455 nm)</td>
<td>—</td>
<td>Range: 0 to 500 CU</td>
</tr>
<tr>
<td>Accuracy</td>
<td>Turbidity  ±2% of reading plus 0.01 NTU from 0 to 1000 NTU, ±5% of reading from 1000 to 4000 NTU</td>
<td>±2% of reading plus 0.01 NTU from 0 to 1000 NTU, ±5% of reading from 1000 to 4000 NTU, ±10% of reading from 4000 to 10,000 NTU</td>
</tr>
<tr>
<td></td>
<td>Color measurements —</td>
<td>±2% CU from 0 to 30 (calibrated at 15 CU), ±5% CU from 0 to 500 (calibrated at 500 CU)</td>
</tr>
<tr>
<td>Power</td>
<td>230 VAC</td>
<td>110 VAC</td>
</tr>
</tbody>
</table>

† Reference conditions: 23°C ±2°C; 50% RH ±10 RH noncondensing; 115/230 VAC, ±17%, 50/60 Hz.

2317274 Calibration sets for 1173336 .....................................................................................................................................................................................
1716041 Calibration sets for 1717447 .....................................................................................................................................................................................
1717450 Degassing kit ...............................................................................................................................................................................................
1717451 Sample cells. Pack of 6 .......................................................................................................................................................................................
2317275 Sample cell oiling cloth .......................................................................................................................................................................................
2317276 Replacement silicone oil; 15 mL .................................................................................................................................................................
1717454 Sample cell adapter, 19 mm .................................................................................................................................................................