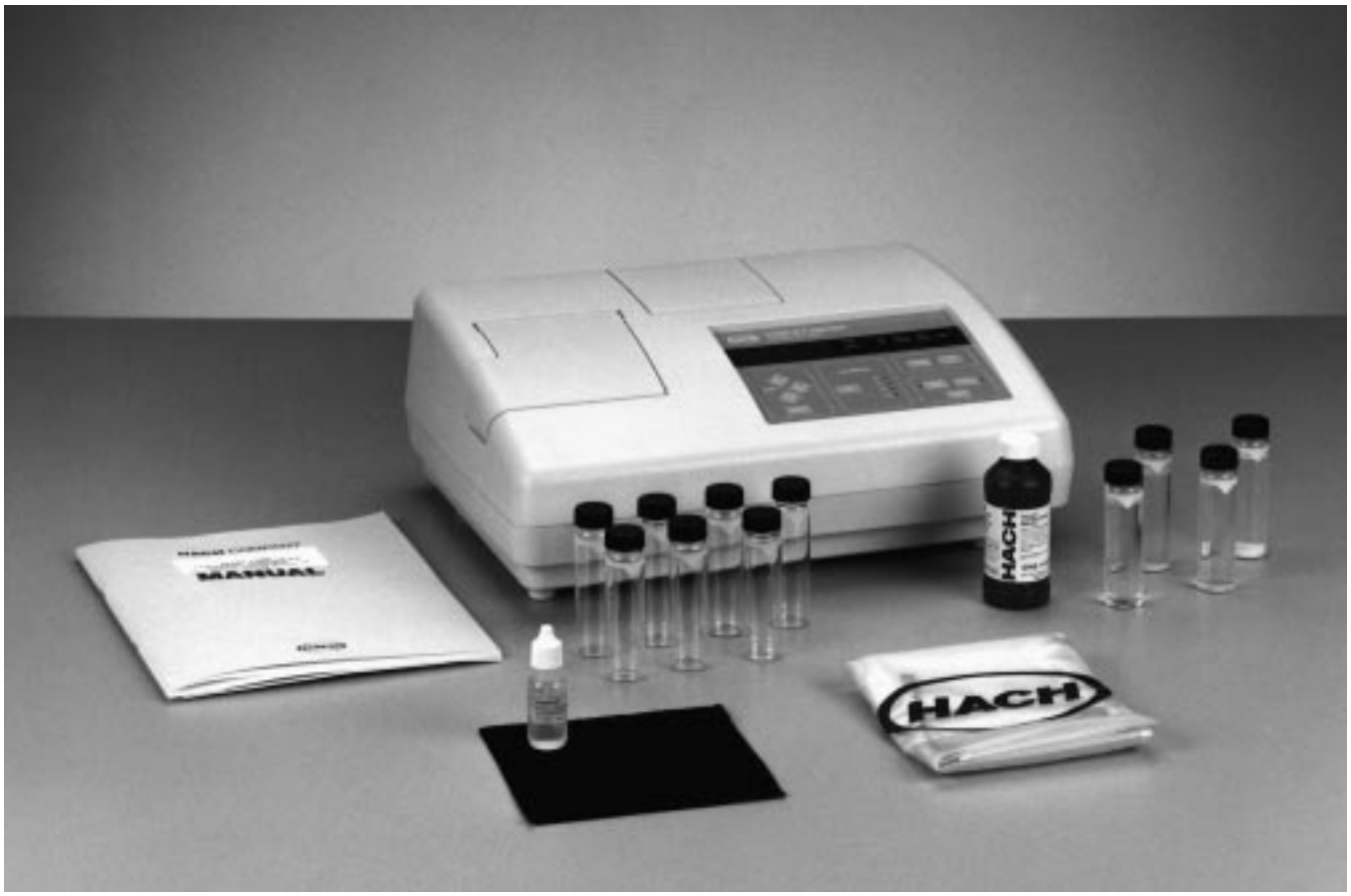
2100N IS LABORATORY TURBIDIMETER

Meets ISO 7027 Turbidimetric Measurement Standards



The 2100N IS Laboratory Turbidimeter combines ease-of-use with consistent, accurate performance.

The 2100N IS Laboratory Turbidimeter is a versatile, advanced ISO-compliant instrument for nephelometric measurement. It uses an LED light source and a detector to measure the level of light scattered by a sample at an angle of 90° to the incident beam, and meets ISO 7027 Turbidimetric Measurement Standards.

Capable of monitoring turbidity over the 0 to 1000 FNU/NTU* range with ± 2% accuracy, the instrument provides advanced features including signal averaging and RS232 output to an external printer or computer. Optional pour-through and high-pressure flow cells extend the capabilities of the 2100N IS in demanding laboratory applications. An air purge connection allows the operator to supply dry gas to the sample cell area of the instrument in applications where condensation can occur.

The instrument is designed for simplicity of use. All functions can be accessed with the moisture-sealed, touch-key operator panel. Advanced microprocessor-based design greatly simplifies calibration, guiding the operator with display prompts through an easy, step-by-step procedure. The instrument requires only periodic standardization, and no potentiometric adjustments or instrument zeroing are required during calibration or operation. All calibration and instrument data are saved in non-volatile memory when the inistrument is turned off, and restored automatically when the instrument is turned back on.

* The Nephelometric Turbidity Unit (NTU) is the USEPA-designated unit of turbidity measurement, equivalent to the ISO-designated Formazin Nephelometric Unit (FNU).

Specifications

Measurement Range (FNU/NTU):
Manual: 0 to 0.999, 0 to 9.99, 0 to 99.9, 0 to 1000
Auto: 0 to 0.999, 1.00 to 9.99, 10.0 to 99.9, 100 to 1000
Accuracy: ± 2% of reading or ± 0.01 FNU (plus stray light), 0 to 1000 FNU
Signal Averaging: Selectable on/off
Light Source: Infrared light emitting diode (LED), 870 ± 30 nm, 10 year continuous use life expectancy
Display: LED, 7-segment, 5 characters, user-selectable FNU or NTU units
Temperature Range:
Operating: 0 to 45 °C
Sample: 0 to 95 °C
Storage: -40 to 60 °C

Operating Humidity Range:
0 to 90% RH, non-condensing, at 25 °C
0 to 75% RH, non-condensing, at 40 °C
Air Purge: 0.1 scfm at 10 psig
Input/Output: RS232 serial interface
Power: 95 to 240 Vac, 50/60 Hz, 60 VA
Dimensions: 40.0 x 30.5 x 14.2 cm (15.75 x 12 x 5.6")
Weight: 3.77 kg (8.31 lb)
Compliance:
Turbidity: ISO 7027 1990-04-15
NF T 90-033
DIN 3804
Safety: Model 47900-00: UL and CSA approved by ETL
Model 47900-02: CE approved (Low Voltage Product Safety and Electromagnetic Compatability Directives)

Sample Specification

The turbidimeter shall be a laboratory nephelometer with a detector centered at 90° from the incident light beam. The light source shall be an 870 ± 30 nm light emitting diode. The instrument design shall comply to current versions of ISO 7027, DIN 3804 and NF T 90-033 turbidity measurement standards.

Measurement range of the turbidimeter shall be 0 to 1000 FNU, with automatic ranging and decimal point placement. Accuracy shall be ± 2% of reading or ± 0.01 FNU, plus stray light, from 0 to 1000 FNU. Signal averaging shall be included, and shall toggle on or off using a single key.

Calibration shall be with formazin primary standards of 20, 200 and 1000 FNU, and a dilution water blank. Calibration shall be accomplished using the instrument's keyboard; there shall be no potentiometer adjustments required.

Standard accessories shall include six sample cells, a stray light standard and a set of secondary standards composed of silicone gel and metal oxide particles, and a complete illustrated manual. The instrument shall provide RS232 serial communications, and automatic selection of power voltage and frequency.

The manufacturer shall warrant the instrument for two years from date of shipment against defects in materials and workmanship.

How To Order

The 2100N IS Laboratory Turbidimeter is supplied with six 25 x 95 mm sample cells, a set of Gelex® Secondary Standards, 100 mL of 4000 NTU formazin primary standard, 15 mL of silicone oil and sample cell oiling cloth, dust cover, detailed instrument manual, and power cord.
47900-00 2100N IS Laboratory Turbidimeter, 115/230 Vac, wiith North American power cord and plug
47900-02 2100N IS Laboratory Turbidimeter, 115/230 Vac, wiith continental European power cord and plug

Flow Cells (optional)
47449-00 Low-Pressure Flow-Cell Kit
47451-00 High-Pressure Flow-Cell Kit

Accessories (optional)
30334-00 12/13-mm Cell Adapter
30335-00 16-mm Cell Adapter
30336-00 19-mm Cell Adapter
26621-00 StablCal™ Stabilized Formazin Standards, <0.1, 20, 200, 1000 FNU/NTU, 500 mL each
43975-10 Sample Filtration and Degassing Kit
49502-00 RS232 Interface Cable, Computer (9-pin female to 9-pin male)
49503-00 RS232 Interface Cable, Printer (9-pin female to 25-pin male)

In the United States, call 800-227-4224 toll-free for current prices or technical assistance.
Outside the United States, contact the Hach office or distributor serving you.

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