

Nephelometer

Real-Time Handheld Dust Monitor



Shown with Optional Boot

The Sensidyne Nephelometer is an advanced real-time dust monitor accurately measuring dust concentrations using proven light scatter technology. This portable instrument accurately measures and records dust from 1-10,000 $\mu\text{g}/\text{m}^3$ with resolution to 1 $\mu\text{g}/\text{m}^3$. Sample modes are selectable between 60 second sample, 15 minute STEL, or continuous sampling.

The Nephelometer has an internal pump drawing samples into the iso-kinetic sampling inlet where they meet sheath air that guides samples past the particle sensor. The sensor is a photo detector that measures laser light scattered by particulates in the sample

Accurate Dust Concentration

Proprietary algorithm provides accurate dust concentration. The sheath air feature prevents internal contamination and improves accuracy.

Reliable

Temperature compensated, durable housing and minimal moving parts ensure reliability.

Highly Portable

All-in-one handheld instrument with long-life batteries that fully charge in less than 3 hours.

Facility Monitoring

Easy to use software allows programming unique environmental profiles and recording sample data.

Common Applications

- Industrial/Occupational Hygiene Area Surveys
- Particulate Matter Studies
- Immediate spot measurement
- Aerosol Research Studies

stream. The instrument multiplies each measurement by a K-factor and displays the real-time reading on the display of the instrument. After each sample, the K-factor and Environmental Factor Name and STEL, maximum, minimum, and average readings record to the internal data log. When connected to a computer the instrument uploads up to 4,000 data-log records in spreadsheet format.

In addition to high sensitivity and ease-of-use the Sensidyne Nephelometer offers a low cost of ownership, automatic power save, long-life, data-logging, facility monitoring features, and user-replaceable filters.

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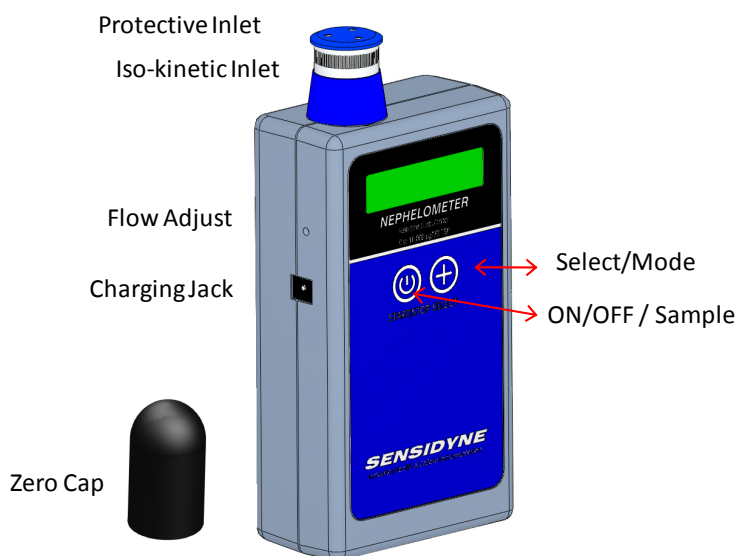
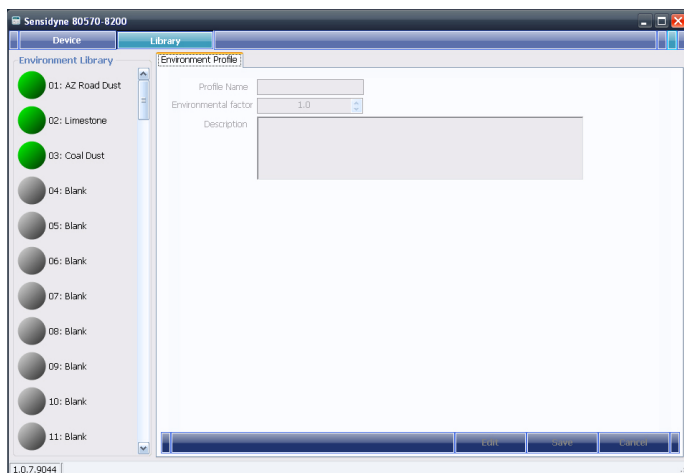


Diagram of Nephelometer



Screen-shot of Facility Monitoring Software

Product Specifications

PERFORMANCE

Measurement Method: Light scatter
Sample Method: Pump sample draw
Range: 0.1 – 10,000 µg/m³
Sample Options: 1 minute, Continuous, or 15 min STEL
Resolution: 1 µg/m³
Data logging: 4000 records of STEL, Max, Min and average reading and k-factor

ENVIRONMENTAL

Temperature Ranges
Operating: 32°F to 122°F (0°C to 50°C)
Storage: -4°F to 140°F (-20°C to 60°C)

GENERAL

Display: 2 line, 16-character LCD
Controls: 2-button
Logging: 4000 Record memory
Dimensions: 3.75W x 6.75H x 2.0D inches
9.5W x 17.2H x 5.1D cm
Weight: 24 oz. (0.67 kg)

ELECTRICAL

Light Source: Laser diode
Power: 7.2V Lithium Ion self-contained battery pack providing 30 hours of typical intermittent operation and up to 12 hours continuous use.
Charger: 100-240VAC Lithium Ion Charger 8.4VDC @ 1500mA typical.
Charging Time: Less than 3 hours
Communications: USB Mini B Type
Standard Calibration: Arizona Road Dust. K-factors allow direct reading of other substances.
Safety Conformity:

- FDA / CDRH This product is tested and complies with 21 CFR, Subchapter J, of the health and Safety Act of 1968.
- European Community (CE) Directive 89/336/EEC EN 55011 Group 1, Class B (Emissions) and EN 55082-1 (Immunity)
- IEC 60825-1 Ed.1.1 (1998-01)
- EN 60825-1 W/A11 (1996)
- US 21 CFR 1040.10

Supplied: Operation manual, Charger with power cord, zero cap, spare filter, software and USB cable.
Optional: Carrying case and Rubber Protective Boot
Warrenty: One year from date of shipment.

Description	Part Number
Nephelometer Kit	810-1001-01
Rubber Protective Boot	375-0008-01
Carrying Case	375-0009-01