

# AIR-AIDE

## Airborne Particulate Monitor

### Portable Fixed-point Dust Survey Tool

- High resolution (0.001 mg/m<sup>3</sup>) and temperature stability
- Long-life air sample pump for accurate particle separation
- Interchangeable size-selective impactors — choose PM10, PM2.5, PM1.0, or respirable
- Selection of built-in calibration factors for fine and coarse particulate matter
- 10-hour rechargeable NiMH battery
- Extended runs from AC power with supplied charger/adaptor
- Large data storage capacity
  - Run continuously for 15 months without downloading
- On-screen programming of sampling and data storage parameters
- PC-based software included for downloading and graphing stored data
- User-defined audible alarm
- Location codes for tagging data
- Displays concentration in mg/m<sup>3</sup>, TWA, STEL, Max, Min, date, and time
- Interfaces with VDM-7500 wireless video dust monitoring system
- Optional wireless data transmission to PC

The portable AIR-AIDE™ Airborne Particulate Monitor is a fixed-point monitor for measuring lung damaging dust levels. AIR-AIDE is ideal for indoor air quality investigations and as a tool for compliance. With the 10-hour NiMH battery, AIR-AIDE can sample for a full day. For extended monitoring, run AIR-AIDE from AC power using the supplied charger/adaptor. Results are displayed immediately or can be stored in memory. At the end of monitoring, download data to a PC. Supplied DustComm Pro Software allows for graphical and statistical representation of the total dust generating process.



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### AIR-AIDE Applications

AIR-AIDE can be used for both indoor and ambient monitoring. It is an excellent assistant tool for OSHA/EPA/ASHRAE compliance methods.

- Exposure monitoring of dusts and aerosols including:
  - Lead
  - Welding fumes
  - Silica
  - Coal dust
  - Wood/paper
  - Concrete/cement
  - Cadmium
  - Nuisance dusts
  - Chromate
  - Toxic soil remediation
  - Tobacco smoke
  - Construction dust
  - Dry chemical
  - Oil mists
  - Grinding dusts
  - Pharmaceuticals
  - Spray paint
  - Grain
- Pre-determination of air quality for ventilation system design
- Survey of workplace for compliance and related health reasons
- Monitoring indoor air quality in factories, offices, or homes for respirable particulates
- Indoor air quality investigations for "Green Buildings"

### Performance Profile

**Accuracy:**  $\pm 10\%$  to filter gravimetric SAE fine test dust

**Resolution:** 0.001 mg/m<sup>3</sup>

**Calibration:** NIOSH gravimetric method, NIST traceable, SAE fine test dust, ISO 12103-1

**Sensing Range:** 0.001 to 20.0 mg/m<sup>3</sup> or 0.01 to 200 mg/m<sup>3</sup> (optional)

**Particulate Size Range:** 0.1 to 100  $\mu\text{m}$

**Particle Size Measurement:** 1  $\mu\text{m}$ , 2.5  $\mu\text{m}$ , 4.0  $\mu\text{m}$ , or 10  $\mu\text{m}$

**Precision:**  $\pm 0.003$  mg/m<sup>3</sup> (3 mg/m<sup>3</sup>)

**Sampling Flow Rate:** 2 L/min

**Display:** Alphanumeric LCD, 4 lines, 20 characters, mg/m<sup>3</sup> concentration reading

**Operation:** Four-key splash-proof membrane switch

**Analog Output:** 0 to 2 VDC

**Alarm Output:** 90 dB at 3 ft

**Record Time:** 1 second to 15 months

**Sampling Rate:** *Short-term:* 2, 4, and 10 seconds

*Long-term:* 1, 10, and 30 minutes

**Memory and Time Storage:** > 5 years

**Real-time Clock and Display:** hours, minutes, seconds, day, month, year

**Data Storage:** 21,600 data points

**Data Display:** Concentration in mg/m<sup>3</sup> and TWA, Max, Min, STEL, date, time

**Digital Output:** RS-232

**Operating Temperature:** 14 to 122 F (-10 to 50 C)

**Storage Temperature:** -4 to 158 F (-20 to 70 C)

**Software:** Windows driven for graphical and data translation

**Power:** Rechargeable NiMH battery

**Operating Time:** > 10 hrs (fully charged)

**Charging Time:** < 10 hours

**Humidity:** 95% non-condensing

**Dimensions:** 3 x 6 x 9 in (7.6 x 15.2 x 22.9 cm)

**Weight:** 2.3 kg (5 lbs)

### Ordering Information

Description	Cat. No.
AIR-AIDE Monitor Kit includes monitor (0.001 to 20 mg/m <sup>3</sup> ), NiMH battery, charger/adaptor (100-240 V), rotameter, calibration standard, impactor sleeve for TSP, DustComm Pro Software, cable, and instruction manual	770-600
<b>Accessories</b>	
Impactor Grease	770-211
Size-selective Impactors	
PM10	770-606
PM2.5	770-605
PM1.0	770-604
Respirable	770-603
Wireless Data Transfer Radio Modem, 900 MHz, 300-ft transmission	770-505
Wireless Data Transfer Radio Modem, 900 MHz, up to 1500-ft transmission	770-505X
Precipitation and Solar Cap	770-216
Tripod Mounting Stand for AIR-AIDE	770-607
Cleaning Kit includes dust-free air canister, lens cleaning solution, swabs, and lens tissue	770-305
<b>Replacement Parts</b>	
Calibration Standard	770-207
Impactor Sleeve for TSP	770-602
Battery Pack, NiMH	770-601

