

DUSTCOUNT® 9000-Z1 SPECIFICATION SHEET

OVERVIEW

The DustCount 9000 provides the features required to support real-time personal aerosol monitoring in a single, lightweight, wearable, easy to use package.

The DustCount enables Hygienists to use its real-time mass concentration, particle concentration, and size distribution data to determine whether a worker is being exposed to dangerous levels of particulate. With the built-in filter cassette, Hygienists can correlate the real-time data using standard method gravimetric analysis and/or composition analysis without the need for an external pump and filter.



Hygienists have used the DustCount real-time data, and filter analysis results, to enhance discussions on aerosol exposure issues with senior management, to graphically demonstrate dangerous areas to workers, to verify if mitigation systems or processes are working effectively, and to lowering costs by focusing on problem areas identified by real-time accurate air measurements.

FEATURES AND BENEFITS

- ❖ **NEW!** Monitor for PM 2.5, Respirable, and PM 10.0 particulate concentrations within a single unit.
- ❖ **NEW!** Alarms for STEL, TWA, and Ceiling.
- ❖ **NEW!** Configurable Start/End of Shift.
- ❖ **NEW!** Enhanced Audible and Visual Alarms.
- ❖ **NEW!** Intrinsically Safe.
- ❖ **NEW!** Longer run time battery.
- ❖ Optical Particle Counter technology provides real-time mass, particle concentration, and particle size distribution data.
- ❖ Size distribution data is stored in 128 internal digital particle size bins, with 20 size bins exposed in logs and graphs.
- ❖ Built-in cassette houses 25mm filter for standard method gravimetric, or composition analysis.
- ❖ Wireless interface for management and control from PC or Smartphone with a maximum of 128 Bluetooth connections on user interface software on PC.
- ❖ Real-time graphing with DustCount software.

TECHNICAL SPECIFICATIONS

DIMENSIONS

Size (H x W x D): 13 x 9 x 4 cm (5.5 x 3.5 x 1.8 in)

Weight: 0.5 Kg (1.0 lb)

OPERATING PARAMETERS

Temperature: 0 to 32° C (32 to 89° F)

Humidity: < 80% up to 32° C, non-condensing

Altitude: Flow rate adjusts automatically for -2000m to +10,000m altitude. Flow rate is user adjustable for altitudes

below -2000m to a max of -2500m. For altitudes below -2500m contact Nanozen for guidance.

Maximum Operational Pressure: 1.26 to 0.26 atmospheres.

FLOW RATE

Factory set to 1.0 L/min with +/- 5% accuracy.

DEVICE INTERFACES

Display: Liquid Crystal Display, monochrome, multi-page, 16-character, 3-line.

Communications Interfaces: USB (USB-Type A connector), and Bluetooth 4.2

ALARMS / ALERTS

Alarm Notifications: Visual – Flashing LED's and LCD panel, Audible – 110dBA audible alarm (adjustable volume).

Alarm Types: PEL, STEL, Ceiling, and TWA alarms with user configurable parameters.

Alerts: Filter and Impactor maintenance alerts.

DUSTCOUNT SOFTWARE

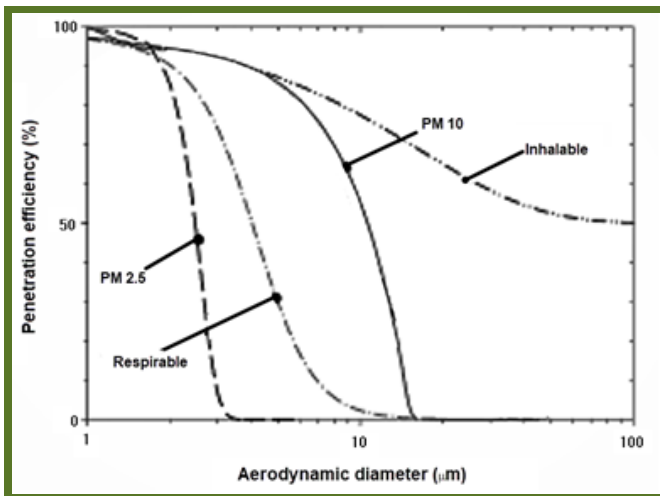
Operating Systems: Mac OS 10.11 or higher and Windows 7 or higher.

MEASUREMENTS

Mass concentration linearity range: up to 5mg/m³ with ISO 12103-1 A1 ultra-fine test dust (Arizona Road Dust)

Post Sample Analysis: Removable 25mm filter

Measured Concentration while Using Impactors: Complies with EPA sampling convention (see figure below) within 15% for PM2.5, Respirable, and PM10.



DATA

Data Storage: 4 GB on-board memory (holds 1 million logged events)

Logging Interval: Configurable between 5 seconds to 60 minutes.

Formats: Logs saved as either CSV, or Excel (.xlsx) format. Graphs saved as .png format.

POWER

Battery: Three-cell Lithium Ion battery pack (3.7V, 32.4 Wh)

Run Time: 12-hour continuous use on a fully charged battery

Charge Time: 7-hour maximum recharge time using charger provided.

Charger Voltage range: 100 to 240VAC 50/60 Hz, 15W maximum (Use only supplied charger)

USB Power Input: 4.8VDC to 5.5VDC, 2.6A max when charging.

INTRINSIC SAFETY CERTIFICATION

IECEx / ATEX rating: Ex ia op is I Ma and Ex ia op is IIIB Da T6, 5°C Ta 32 °C

cLCus rating: Class II, Division 1, Group F T6

SAFETY CERTIFICATION

CAN/CSA-C22.2 NO. 61010-1-12 (R2017) (Tri-national standard)

UL 61010-1 and ANSI/ISA-61010-1 (82.02.01)

UL 61010-1(Ed. No.3)

CALIBRATION

Calibrated against gravimetric reference using ISO 12103-1 A1 ultra-fine test dust (Arizona Road Dust)

Sizing Calibration: Standard PSL particles in size range 0.4 - 6µm

INFORMATION

- ❖ www.nanozen.com for more information.
- ❖ Email Nanozen at moreinfo@nanozen.com
- ❖ Contact Nanozen at 1-844-626-6936