nanozen
know the air you breathe

DUSTCOUNT 8899 SPECIFICATIONS SHEET

OVERVIEW

The DustCount real-time Personal Wearable Particle Monitor provides the features required to support real-time personal aerosol monitoring in a single, lightweight, easy to use package.

Respirable particles such as crystalline silica are dangerous and can cause respiratory health issues such as lung cancer, emphysema, and COPD. They can also get into the blood stream and settle in other organs such as the brain and liver and cause health issues and cancer.

The product allows Hygienists to use real-time methods to determine if, when, and where a worker is being exposed to dangerous concentrations of respirable particles, and then use the collected samples of the same event to correlate this data using standard method gravimetric analysis and/or to check the composition using XRD analysis.

Hygienists have used the data gathered with the real-time capability, backed up with filter measurements using the standard method, to enhance discussions on dust issues with senior management, to graphically demonstrate dangerous areas to workers, to prove to regulators that containment systems are working effectively, and to save money by lowering ventilation costs through accurate air measurements.

FEATURES AND BENEFITS

- Monitor Silica and other dust accurately and effectively with a single wearable device.
- Real-time readings and sample collection filter on the same device allow tight correlation of data.
- Compact and lightweight with high quality construction makes this an excellent Personal Device.
- Post event sample filter allows gravimetric analysis for standard method and XRD analysis for silica.
- Wireless interface for management and control from PC or Smartphone makes it easy to use.
- Automated pump management eliminates ongoing manual calibration of pumps.
- Rechargeable batteries and long-life pump ensure lower maintenance demands.

TECHNICAL SPECIFICATIONS

DIMENSIONS

- Size: H: 13cm (5.5in) x W: 9cm (3.5in) x D: 4cm (1.8in).
- ABS plastic housing
- Weight: 0.5Kg / 1lb

OPERATING PARAMETERS

- Temperature: 5˚ C to 32˚ C
- Humidity: < 80% up to 32˚ C
- Altitude vs Flow: Calibrated for Sea Level. Reduce reported flow by 1% for every 100m above sea level. Increase reported flow 1% for every 100m below sea level.
- Maximum Operational Pressure & Altitude Range: 1.26 to .78 atmospheres, -2000m to +10000m altitude.
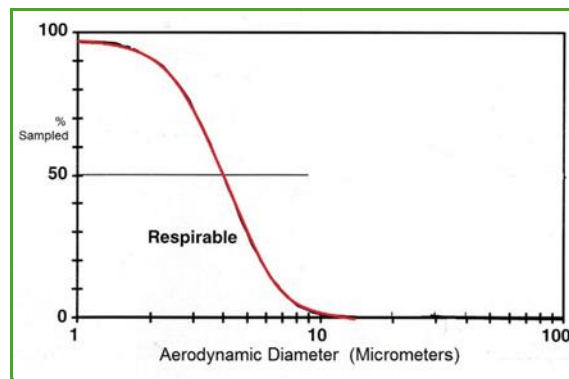
DISPLAY

- 20-character, 4-line monochrome LCD.

USER CONTROL/STATUS

- Management of: Data, Logging, Graphing, Test period, and Alarms.
- Configuration of: Date/Time, count factor, mass concentration factor, particle type.

MEASUREMENTS

- Commence after pump calibration completes – up to 60 seconds
- Particle Diameter: 0.5μm to 10 μm: NIOSH recommended transfer curve (shown below)
- Post Sample Analysis: Removable 25mm diameter filter
- Particle Count rate: Maximum: 200X10^6 particles/m^3 maximum with Arizona Road Dust.
- Maximum measurable mass concentration: 5mg/m^3

Air sampling conventions defined by ISO in 1995 in accordance with ISO/ACGIH/CEN. Reference, P.A. Baron. (NIOSH/DART) "Factors Affecting Aerosol Sampling", Chapter AE

DATA

- Host Interface: Bluetooth, USB.
- Memory Capacity: 4 GB of NVRAM, 1 million logs.
- Logging Interval: Configurable between 5 seconds and 1 hour, default 60 seconds
- Format: Log can be saved in either CSV, or Excel (.xlsx) format. Graphs can be saved to .png format.

POWER

- Two-cell Lithium Ion battery pack (7.5V, 22WH - battery protection included)
- Charger input voltage range 100 to 240VAC 50/60 Hz (Use only charger supplied)
- Maximum 17W, range 6VDC to 8.4VDC, maximum 2.0 ADC,
- 10-hour continuous use on single battery charge, 2-hour recharge using charger provided.

ORDERING INFORMATION

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