MODEL

HD-7204

Personal Real-Time Aerosol Compliance Monitor for measuring all lung damaging particles and aerosols

The Only Personal Monitor To Offer:

- Flow compensated pump for OSHA & NIOSH compliance monitoring
- Compatible with any pre-loaded 37 or 25mm filter cassette
- Tested and validated selective size inhalable and respirable sampling inlets
- Miniaturized optical sensor mounts in OSHA defined breathing zone
- Easy to clean optical sensor
- Infield calibration verification
- Optional Wi-Fi, BLE, GSM, and networking capabilities.

HD-7204 identifies potential dust problems
before they become health concerns

Common Uses

- Silica
- Diesel
- Coal
- Lead
- Construction dust
- Welding fumes
- Wild fires
- Concrete/cement
- Nuisance dusts
- Grinding dusts
- Pharmaceuticals
- Paint spray
- Grain
- Soil remediations
- Wood/paper
- Cadmium
- Chromate
- Tobacco smoke
- Construction dust
- Dry chemicals
- Oil mists

Key Features

- Flow compensated pump
- Can accept any 37mm or 25mm pre-weighed and preloaded filter cassette
- Respirable & Inhalable sampling inlets
- Miniature sensor in OSHA defined breathing zone
- Ability to create on screen aerosol profiles and the ability to name data sets
- Real-time rolling graphical display
- Large color touch screen
- Optional wireless connectivity
- Impactors for PM-10, PM-5.0, PM-4.0, PM-2.5
- Easy to clean optical sensor
- Infield calibration verification
- Multiple language options
- OSHA TWA, min, max, cumulative average along with STEL and ceiling alarms

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Airborne particulate matter, or dust, is becoming an increasing concern and making current headlines due to its adverse effects to human respiratory health. Lung damaging particulates in the workplace can be detrimental to a worker's health as well as a company's legal responsibility.

The **HD-7204** is a valuable tool that allows Industrial Hygienists and safety professionals to immediately identify problem areas and job tasks with the highest risk. Professionals can then implement control measures to reduce worker exposure levels and measure the effectiveness of these controls.

The HAZ-DUST Model **HD-7204** offers a flow compensated pump for compliance monitoring. The days of requiring two devices and co-locating a FRM filter cassette and real-time reading instrument are over! The **HD-7204** offers a flow compensated pump, the ability to use pre-weighed filter cassettes and offers real-time capabilities. The sensor, which is mounted in the OSHA defined breathing zone, is sandwiched between a 25 or 37mm filter cassette and interchangeable, validated, sampling inlets for respirable, inhalable and thoracic particulate size fractions.

When used as part of a routine air-monitoring program, the **HD-7204** can significantly reduce the number of filter gravimetric tests and laboratory analyses. For example, an OSHA compliance air monitoring program may dictate air monitoring for particulates on a monthly basis to determine that work practices are below Federal Regulations. If a company has 10 or more employees at risk of exposure this can result in as many as 10 to 20 tests per month and subsequent lab analysis. By implementing a **HD-7204** real-time dust monitor, particulate concentrations can be determined immediately and in real-time. No special skills are needed and no laboratory analysis is required. The **HD-7204** actually pays for itself by reducing the number of filter gravimetric tests by 25 to 50%. The **HD-7204** alerts users in seconds and allows for immediate corrective action.

In addition to being a cost saving instrument, it has the greatest range, lowest detection and better resolution than any other personal monitor on the market. Also, the user interface was designed with the worker in mind! The **HD-7204** provides comprehensive real-time rolling graphs, audible and visual alarms, dust concentration in either ug/m^3 or mg/m^3, the ability to name data sets and create unique aerosol profiles through the color touch screen.

Our most valuable tool for immediate readings of dangerous dust while helping reduce costs of regulatory compliance monitoring.

01 — OSHA in-line 37mm gravimetric filter cassette

02 — Miniature optical infrared sensor for true breathing zone measurements

03 — OSHA defined interchangeable sampling inlets

04 — Optional wireless connection Radio, Bluetooth, and Cellular

05 — Real time display of dust concentration, data logging of personal exposures, and statistics; TWA, STEL, MAX, MIN

06 — Flow Compensating Pump

Two instruments in one

Personal Real-Time Aerosol Monitor and compliance for filter gravimetric sampling

- **Immediate display** of airborne particulate concentration
- **Early warning** audible alarm signal of approaching threshold limits
- **Validated interchangeable sampling inlet**
- In-line 37mm filter **can be weighed or analyzed**

- **Accurate** size selective separation
- **Comprehensive** time vs. concentration graphs with supplied
- Single or multiple instruments can **effortlessly transmit in real time to PC or laptop through wireless options**

HAZ-DUST® 7204 provides a solution

for each OSHA defined size selective region of the lungs

Inhalable particles

Particles that deposit in the nose, mouth, pharynx and larynx and have an aerodynamic size cut point of 100 microns.

Use **HAZ-DUST® IOM** sampling inlet.

Thoracic particles

Particulates that deposit in the trachea, bronchus and have an aerodynamic size cut point of 10 microns.

Use **HAZ-DUST® Thoracic** sampling inlet.

Respirable particles

Particulates that deposit in the lower portion of the lung sacks or bronchioles and have an aerodynamic cut point of 4.0 microns.

Use **HAZ-DUST® Respirable** sampling inlet.

HD-7204 Specifications

Sensors	**Sensor Type:** 90° light scattering 880nm **Calibration:** Calibrated against Gravimetric reference NIST traceable- SAE fine test dust ISO12103-1 A2 Fine Test Dust. **Accuracy:** +/- 10% to filter gravimetric SAE fine test dust **Precision:** +/- 0.02 mg/m³ **Sensing Range:** 0.001-500 mg/m³ or 1-500,000 ug/m³ **PM Size Range:** 0.1 to 100цm **Minimum Resolution:** 1 ug/m³ (0.001 mg/m³) **Zero Stability:** +/- 0.001 mg/m³ (give ug/m³ equivalent also) over 24 hours using 10 second log rate. **Humidity:** 95% non-condensing
Display	3.5", 24-bit True color, Resistive Color Touch, with Auto Dimming
Real-Time Data Display	**Time:** Hours, min., sec., 12hour & 24 hour **Date:** MM/DD/YYYY, YY/MM/DD, DD/MM/YY **Data Display:** Concentrations (mg/m³, ug/m³), Sampling Size Fraction of PM (OSHA TWA, AVE., MAX., MIN.), Start time, stop time, elapsed run time, Log rate, Flow, Real-Time Rolling Graphs (10 sec and 1 second), Personalized Named Data Sets, Unique Aerosol Profiles, Language Options, Battery Life Pump Faults, Flow Rate, In Feld Calibration Test, History of Data Sets
Sampling Flow Rate	**Sampling Flow Rate:** 1-5 Lpm The pump is capable to maintain flow within ±5% as follows: 1.0 Lpm up to 70 Inch H2O; 2.5 Lpm up to 55 Inch H2O, and 5.0 Lpm up to 20 inch H2O.
Filter Cassette	37mm preloaded and weighted filter cassette 37mm 1um jeweled cassette for diesel particulates 25mm Preloaded cassette
Attachable Inlets	
Respirable Inlet	**GS-3 Cyclone:** 2.75 LPM for 4µm cut point (OSHA silica rule) Meets ISO 7708/CEN criteria **GS-1 Cyclone:** 2.0LPM for 4µm cut point (OSHA silica rule) 3 LPM for 3.5 cut point (MSHA silica standard) 1.7 or 2.0 LPM with DPM cassette (MSHA DPM sampling) Meets ISO 7708/CEN criteria
Inhalable Inlet	**IOM sampler:** 2.0 LPM Meets ISO 7708/CEN criteria
Thoracic Inlet	**Thoracic Sampling Inlet:** 2.0LPM
Impactors	PM10, PM5.0, PM4.0, PM2.5
Alarm Output	Audible & Visual **Audible:** 90db at 3ft Ceiling and S.T.E.L Alarms, Pump Fail, and Low Battery

Recording Time	1 second to 15 days Sampling Rate: 1 sec., 4 sec., 10 sec., and 60 sec
Data Storage	43,200 data points
Memory & Time Storage	>5 years
Digital Output	Micro USB 6.00' (1.83m), A Male to Micro B Male, 28SWG, Shielded
Power Supply	Wall Mount, Multi Bald Included, Voltage Input 100~240 VAC, Voltage Output 12V, Current Output 2A, CE, UL, CB, cUL, PSE, RCM
Battery	Lithium Ion pack, 7.4 Volt 3350 mAh, 24.79 watts
Operating Time	22+ hours Running at 2.0LPM with IOM and no filter.
Operating & Storing Conditions	**Operating Temperature:** 0 to 50°C **Storage Temperature:** -20 to 70°C **Operational Humidity:** 0-95% Non-Condensing
DUSTCOMM Pro Software	Windows™ driven Windows 10 or greater
Maintenance	**Zero Calibration:** Before each use **In Field Calibration Verification:** Before each use **Flow Calibration:** Before each use. Will automatically change when switching PM selective size. **Sensor Cleaning:** By user when needed/ or during annual calibration **Factory Calibration:** Annually or when instrument fails infield calibration verification.
Weight and Dimensions	**Dimensions (Case):** 3.5" x 2.25" x 4.75" **Sensor Dimensions:** 1.75" x 1.5" **Weight Instrument:** 1.14lbs **Weight Sensor:** 0.6lbs **Display dimensions:** 3.5"
PM Sensor	**Sensor Type:** 90° light scattering 88nm Calibrated against Gravimteric reference NIST traceable- SAE fine test dust ISO12103-1 A2 Fine Test Dust.
Tripod Mounting	Optional Accessory

Optional Wireless Connectivity available. Contact EDC for specifications.

For more information on HD-7204, or to learn more about other particulate monitors available, contact us.

ENVIRONMENTAL DEVICE CORPORATION U.S.A.
Easily Deployable. Flexible. Intuitive.

Environmental Devices Corporation

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Environmental Devices Corporation is a manufacturer of scientific instrumentation specializing in real-lime monitoring of particulates, gases, and meteorological equipment. Since its incorporation in 1990, EDC has designed and commercialized several advanced product lines of air monitoring equipment. All Products are highly portable, light weight and compact. EDC has gained worldwide recognition and is committed to ISO quality standards in accordance with requirements and procedures of ANSI/ASQC.

For more information

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