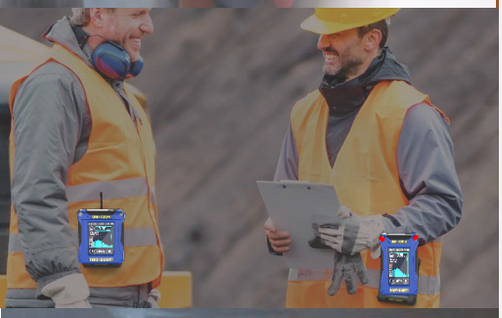


Model

SM-7204

Real-Time Silica Monitor

Concurrent Real-time Monitoring and Gravimetric Sampling for Compliance.

When combining the compensated pump, the Respirable sampling inlet, which conforms to ISO 7708/CEN criteria for crystalline silica and the ability to use preloaded filter cassettes the SM-7204 is the most complete compliance monitor on the market.

The Only Personal Monitor To Offer:

- True Dual-Purpose Wearable Compliance Monitor.
- Adjustable pump compensates for flow changes in back pressure, temperature, and atmospheric pressure.
- Accepts preloaded 25 or 37mm cassettes.
- Sampling Inlet conforms to the ISO 7708/CEN criteria specified in the 2016 OSHA rule on respirable crystalline silica.
- Optical & filter-based technology for more accurate measurements.
- ISO validated Respirable, Inhalable inlets and options PM-10 and PM-2.5 impactors with pre-loaded laboratory filter cassettes.
- User serviceable and maintainable with live online EDC remote technical support to prevent downtime.

EDC Easily Deployable. Flexible. Intuitive.

1(800) 234-2589 | www.hazdust.com

SM-7204 identifies potential dust problems, **before they become health concerns**

Common Uses

- Compliance to NIOSH 7708
- Tier 4 engine studies
- Mining ventilation efficiency
- Mining Applications
- Transportation Studies
- Tunnel

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

"Airborne Silica particulates is becoming an increasing concern and making current headlines due to its adverse effects to human respiratory health. Any lung damaging particulates in the workplace can be detrimental to a worker's health as well as a company's legal responsibility."

The **SM-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 **SM-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 **SM-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 **SM-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 **SM-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 **SM-7204** actually pays for itself by reducing the number of filter gravimetric tests by 25 to 50%. The **SM-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 **SM-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."

Environmental Devices Corporation

1(800) 234-2589 or 1(603)438-9419

www.hazdust.com

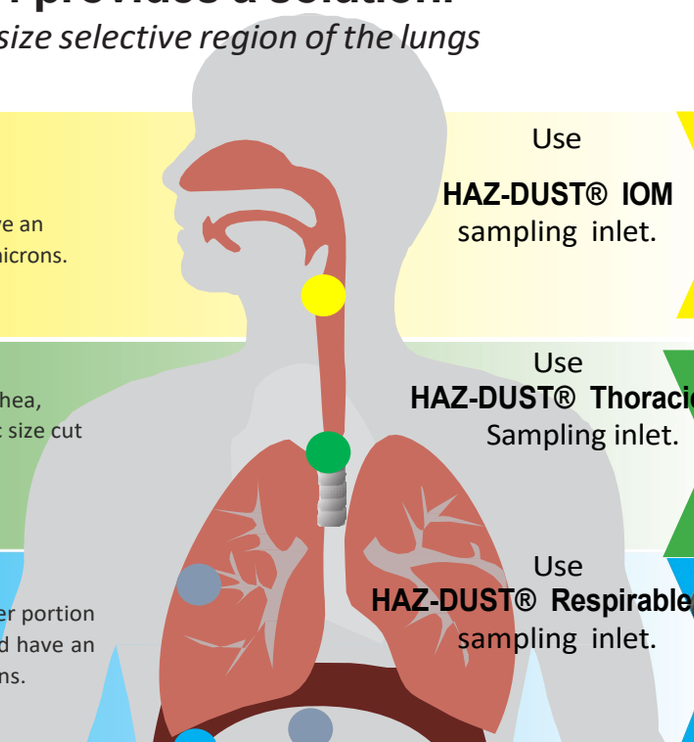
Two instruments in one

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.

SM-7204 Specifications

Sensors	Sensor Type: 90° light scattering 880 nm Calibration: Calibrated against NIOSH 7500 Method, using NIST traceable SAE Test Dust. Accuracy: +/- 10% to filter gravimetric SAE fine test dust Precision: +/- 0.002 mg/m³ or 2ug/m³ Sensing Range: 0.001-500 mg/m³ or 1-500,000 ug/m³ PM Size Range: 0.1 to 100µm Minimum Resolution: 1 ug/m³ or 0.001 mg/m³) Zero Stability: +/- 0.001 mg/m³ or 1 ug/m³ 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 silica 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 880 nm Calibrated against Gravimetric 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 SM-7204, or to learn more about other particulate monitors available, contact us.

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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 the requirements and procedures of ANSI/ASQC.

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