SKC HAZ-DUST 7204

Personal real-time particulate monitor with a flow-compensated pump and an in-line filter



The HAZ-DUST 7204 is two instruments in one: a real-time aerosol monitor and a pump for gravimetric filter sampling. The optical sensor sits in the breathing zone between a 25 or 37 mm filter cassette and an interchangeable inlet for the respirable, thoracic or inhalable fraction. The DPM-7204 is set up for diesel particulate to NIOSH Method 5040.

0.001–500	±10 %	1–5	22+ h	43 200
Sensing range, mg/m³	Accuracy to filter gravimetric	Sampling flow rate, L/min	Run time at 2.0 L/min, IOM	Data storage, data points

Performance

Sensor	Miniature optical sensor, 90° light scattering, 880 nm; mounts in the breathing zone
Calibration	HD-7204: against NIOSH Method 0600, with NIST traceable SAE test dust DPM-7204: against NIOSH Method 5040, with NIST traceable SAE test dust Gravimetric reference: NIST traceable ISO 12103-1, A2 fine test dust
Accuracy	±10 % to filter gravimetric, SAE fine test dust
Sensing range	0.001–500 mg/m³ or 1–500 000 µg/m³
Precision	±0.002 mg/m³ or 2 µg/m³
Resolution and zero stability	Minimum resolution: 1 µg/m³ or 0.001 mg/m³ Zero stability: ±0.001 mg/m³ or 1 µg/m³ over 24 h at a 10 s log rate
Particle size range	0.1–100 µm
Sampling flow rate	1–5 L/min; flow-compensated pump; flow set automatically for each PM size inlet

Operating conditions

Operating temperature	0–50 °C
Storage temperature	−20 to 70 °C
Humidity	0–95 %, non-condensing

Mechanical

Dimensions	Case: 3.5 × 2.25 × 4.75 in Sensor: 1.75 × 1.5 in
Weight	Instrument: 1.14 lb; sensor: 0.6 lb
Filter cassettes	37 mm preloaded and weighed filter cassette 37 mm, 1 µm jewelled cassette for diesel particulate 25 mm preloaded cassette
Tripod mounting	Optional accessory

Electrical and communication

Battery	Li-ion pack, 7.4 V, 3350 mAh, 24.79 W
Run time	22+ h at 2.0 L/min with the IOM inlet and no filter
Power supply	Wall mount, plug adapters included; input 100–240 V AC; output 12 V, 2 A
Digital output	Micro USB; cable 6.00 ft (1.83 m), USB A male to Micro B male, 28 SWG, shielded
Wireless [1]	Optional Wi-Fi, Bluetooth Low Energy (BLE), cellular (Global System for Mobile Communications, GSM) and networking
Software	DUSTCOMM Pro, for Windows 10 or later

Compliance

Power supply	Marks: CE, UL, CB, cUL, PSE, RCM
Inlets	The GS-3 and GS-1 cyclones and the IOM sampler meet ISO 7708/CEN criteria

Inlets and impactors

GS-3 cyclone	2.75 L/min for a 4 µm cut point (OSHA silica rule)
GS-1 cyclone	2.0 L/min for a 4 µm cut point (OSHA silica rule) 3 L/min for a 3.5 µm cut point (MSHA silica standard) 1.7 or 2.0 L/min with a DPM cassette (MSHA DPM sampling)
IOM sampler	2.0 L/min, inhalable
Thoracic inlet	2.0 L/min
Impactors	PM10, PM5.0, PM4.0 and PM2.5
Size fractions	Inhalable: 100 µm cut point; nose, mouth, pharynx and larynx Thoracic: 10 µm cut point; trachea and bronchi Respirable: 4.0 µm cut point; lower lung

Display and data

Display	3.5" 24-bit true colour resistive touch screen, auto-dimming; several languages
Readings	Concentration in mg/m³ or µg/m³; OSHA time-weighted average (TWA); average, maximum, minimum Real-time rolling graphs, 10 s and 1 s; flow, log rate, run times, battery life Named data sets, aerosol profiles, data set history; pump faults; in-field calibration test
Alarms	Audible (90 dB at 3 ft) and visual; ceiling, short-term exposure limit (STEL), pump fail, low battery
Recording	1 s–15 days; log rate 1, 4, 10 or 60 s; 43 200 data points
Memory and time storage	More than 5 years

Maintenance and uses

Before each use	Zero calibration, in-field calibration verification and flow calibration
Sensor cleaning	By the user when needed, or at the annual calibration
Factory calibration	Annually, or when the in-field calibration verification fails
HD-7204 uses	Silica, diesel, coal, lead, cadmium, chromate, construction, concrete and cement, grinding and nuisance dusts Welding fumes, wildfires, pharmaceuticals, paint spray, grain, wood and paper, soil remediation Tobacco smoke, dry chemicals, oil mists
DPM-7204 uses	NIOSH 5040 compliance, Tier 4 engine studies, mining and mine ventilation, transportation studies, tunnels

Flow held within ±5 % against back pressure

Flow rate, L/min	1.0	2.5	5.0
Back pressure, up to, in H_2O	70	55	20

Monitor

Order code	Description
Ask Analyt-MTC	HAZ-DUST HD-7204 monitor kit
Ask Analyt-MTC	HAZ-DUST DPM-7204 diesel particulate monitor kit

Order from Analyt-MTC with the order codes.

Accessories

Respirable impactor, GS-3 cyclone	225-103
Adapter for the GS-3 cyclone, required to fit it	770-313
Calibration standard, verifies span and optical sensor	770-327
Inhalable IOM sampling head	225-70A
Calidaptor, for calibrating the IOM sampling head	391-01

Notes

1. Ask Analyt-MTC for the specifications of the wireless options.

ANALYT-MTC Messtechnik GmbH
Sales, service and calibration

www.analyt-mtc.com

German Headquarters
Klosterrunsstraße 18, 79379 Müllheim
+49 7631 5545
info@analyt-mtc.de

French Subsidiary
175 Avenue d'Alsace, 68000 Colmar
+33 3 89 41 47 78
info@analyt-mtc.fr

© 2026 ANALYT-MTC Messtechnik GmbH. All rights reserved. Subject to technical changes without notice.