GEO INSTRUMENTS

DUST SENTRY PRO

Real-time, multi-channel particle monitor for aerosol profiling

Designed for those who need to monitor multiple sizes of particulate in real time.

The Dust Sentry Pro delivers simultaneous measurement of PM_{10} , $PM_{2.5}$, PM_1 , TSP and particulate counts for 8 channels: 0.3, 0.5, 0.7, 1, 2, 3, 5, and 10 microns.

aeroqual



What is it?

- A robust weather-proof monitor with integrated solar shielding for outdoor monitoring of dust and particulates.
- A modular and configurable monitoring platform for measuring multiple dust and particulare designations with the option to integrate wind, noise, and weather, and solar sensors.
- A flexible communication platform that transfers real-time data wirelessly.
- A web interface accessed via browser that lets you view all your data and set email / sms alerts on parameters of concern.

What can it measure?

Multiple PM fractions.

Who is it for?

Industrial operators who need a cost effective and robust solution to manage and control dust and particulates from activities at:

- Construction and remediation sites
- Quarry and mine sites
- Port and bulk-handling terminals
- Waste management sites

Environmental consultants who need to measure multi-channel PM size fractions.

Regulatory authorities who require deployable, rapid response incident monitoring

Environmental health & safety managers who must demonstrate that they are providing a safe work environment.

Researchers who need an affordable means to collect accurate, scientifically robust data for aerosol profiling.

800-477-2506 >

GEO-INSTRUMENTS — EXPERTS IN AUTOMATED MONITORING							
Particle Module	Sizes		Range	Accuracy	Flow Rate	Lower Detectable Limit (2₀)	
Profiler (Optical Particle Counter)	PM ₁ PM ₂₅ PM ₁₀ AND TSP		PM ₁ 200 ug/m ³ PM ₂₅ 2000 ug/m ³ PM ₁₀ 5000 ug/m ³ TSP 5000 ug/m ³	<±(5 μg/m³ + 15% of reading)	1 LPM	< 1 µg/m³	
Particulate Counts	0.4, 0.5, 0.7, 1, 2, 3, 5, 10 microns		0-1,000,000 particles/L				
System Specifications							
Control System		Embedded fanless PC, Intel Atom N2600 @ 1.6 Gz, 2 GB RAM, 32 GB SSD, Ubuntu Linux OS					
Communications		WiFi, Ethernet (LAN) standard. Cellular IP HSPA 4G modem optional.					
Software		Connect: Runs on embedded PC and accessed via web browser. Cloud: Runs on secure cloud servers, access via web browser. Features: Remote configuration, diagnostics, journal, calibarion and data acquisition. Optional features: SMS and email alerts, auto data export via email or FTP.					
Datalogging		32 GB solid state hard drive with capacity for > 5 years data storage.					
Outputs		Optional 2 x relays or 4 x 4-20mA.					
Averaging Period		1, 5, 10, 15, 20, 30 minutes, 1, 2, 4, 8, 12, 24 hours.					
Power Requirements (heater on/off)		100-260 VAC @ 21 W / 30W. Regulated 12 VDC @ 21W / 30W.					
Enclosure		Lockable IP65 GRP cabinet with integrated aluminum solar shield.					
PM Sampling System		Inlet: Omni-directional 14.1 inch heated inlet. Pump: 12V brushless DC diaphragm pump.					
Dimensions H, W, D		19 x 13 x 7.4 inch, including solar shield and mounting bracket.					
Weight		28.6 lb.					
Environmental Operating Range			14 to 122 °F (-10 to +50 °C).				
Mounting method		Pole	Pole, tripod, wall mounting brackets included.				

Aeroqual products are designed, manufactured, and patented by Aeroqual Limited, 460 Rosebank Road, Avondale, Auckland 1026, New Zealand