

DUST SENTRY

OUTDOOR REAL-TIME PARTICULATE MONITORING

Designed for those who need to monitor and manage dust emissions as and when they happen, the Dust Sentry is a nephelometer-based instrument that delivers affordable and accurate real-time measurement of PM₁₀, PM_{2.5}, PM₁, or TSP.

Compared to reference-equivalent monitors like TEOMs and BAMs which lack sensitivity at short sampling periods, the Dust Sentry reports accurately at 1 minute intervals and has a much lower total cost of ownership (up to 5x less). In addition, the Dust Sentry is compact, re-locatable and can integrate wind and weather sensors for maximum utility.

Highlights


- Measures and reports data in 1 minute intervals
- Accurate measurement of PM₁₀, PM_{2.5}, PM₁, or TSP.
- On board data storage for up to 15 years of data
- Web-based and GSM data retrieval and alerts
- Tough weatherproof enclosure with solar shielding for hot climates
- Option to integrate weather, wind, temp/RH sensors, and sirens

Applications

- Construction site monitoring
- Roadside and tunnel monitoring
- Mine and quarry perimeter monitoring
- Waste transfer and treatment site monitoring



Specifications

Measurement technology	Near forward light scattering nephelometry
Range	0-2000µg/m ³
Accuracy	+/- (2 ug/m3 + 5% of reading)
Cut points available	PM ₁₀ , PM _{2.5} , PM ₁ , or TSP
Sample flowrate	2.0 LPM
Inlet	Heated
Alarm	Relay and SMS (optional)
Datalogging	2GB SD card (>15 years data storage)
Reference filter	25mm GF filter
Software	Datalogging and configuration software included
Outputs	RS232 & cellular IP Gateway
Mounting	Pole and wall mounting
Wireless communication options	Low power RF modem
Meteorological sensor options	Temperature & RH sensor, Gill WindSonic, Vaisala WXT520
Environmental operating range	-10°C to +45°C; 10 to 95% RH (NC)
Power requirements	Mains (100 to 260VAC) or regulated 12VDC (10W)
Enclosure	Lockable & weatherproof GRP cabinet IP65; 685 x 350 x 300mm (including solar shield armour & mounting brackets)
Weight	<12kg
Conformity	
Certification (pending)	