

Dustroid[®] Smart

Ambient Dust Monitor



Dustroid is an Online Particulate Monitoring system to measure the concentration of dust particles in the ambient air. It is capable of monitoring various particulate size ranging from 1 micron to 100 microns such as Ultrafine Suspended Particulate Matter (UFPM), Suspended Particulate Matter (SPM), Respiratory Suspended Particulate Matter (RSPM) and Total Suspended Particulates (TSP).



Ultimate
Durability



Weather
Resistant



Compact and
Lightweight



Retrofit
Design



Real-Time
Data



Network
Agnostic



Over-The-Air
Updates



Tamper
Proof

Our Technology

Dustroid Smart is technologically equipped and works on the Active Sampling method to count particulate matters using a highly accurate laser beam. Its Anti-static inlet avoids loss of particulate during sampling. It offers remote calibration capabilities along with auto device firmware updates. The intelligent optical particle counter can measure data with high accuracy and transmit the same through various data communication modules like GSM, WiFi, LoRa, etc. The data is transmitted to the Oizom cloud in near real-time.

Dustroid[®] Usecases



Construction



Mining And Quarrying

Parameters

Sensor	ID	Range	Resolution	Min. Detection	Working Principle	Expected Sensor Life
Suspended Particulate Matters with size less than 2.5 μ (PM _{2.5})	OZPM_1	Upto 5000 μ g/m ³	0.1 μ g/m ³	1 μ g/m ³	Optical Particle Counter	5000 hours
Suspended Particulate Matters with size less than 10 μ (PM ₁₀)						
Ultra Fine Particulate Matters with size less than 1 μ (PM ₁)						
Total Suspended Particulates (TSP) (PM ₁₀₀)		Upto 30 mg/m ³				
Ambient Noise	OZN_1	Upto 140 dB	1 dB	0.5 dB	Capacitive	2 years
Temperature	OZTEMP_1	-40 to 125°C	0.01°C	-40 °C	Solid State Semiconductor Sensing	
Humidity	OZHUM_1	100% Rh	0.10%	0.10%		
Barometric Pressure	OZPRES_1	300-1100 hPa	0.18 Pa	300 hPa		

External Modules

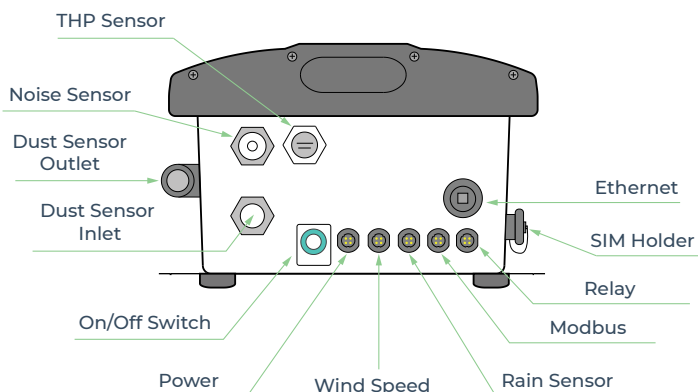


Anemometer
 OZWSD_1
Wind Speed: 0-40 m/s
Wind Direction: 0-359°
Working Principle: Ultrasonic



Rain Gauge
 OZRAIN_1
Resolution: 0.25 mm
Working Principle: Tipping Bucket

Specifications



Size	360mm (H) x 328mm (W) x 200mm (D)
Weight	6.5 Kg (instrument weight)
Material	Aluminum Magnesium Alloy, Mild-steel (With Powder Coating), FRP
Certifications	CE & FCC Certified, PTCRB Certified Communication Module

Accurate Air Quality Monitoring And Advanced Data Analytics



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