Dustroid® Pro

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
- Heated Inlet
- Real-Time Data
- Retrofit Design
- Network Agnostic
- Over-The-Air Updates

Our Technology

Dustroid Pro is technologically equipped and works on the Active Sampling method to count particulate matters using a highly accurate laser beam. Additionally, it has a heated inlet for dehumidification of air-sample. 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

Mining And Quarrying

Sea Ports

Parameters

ID	Parameter	Range	Resolution	Min. Detection	Drift	Working Principle	Measurement Principle	Flow Rate	Expected Sensor Life
OZPM_1	Suspended Particulate Matters with size less than 2.5µ ($PM_{2.5}$)	0-5000 µg/m^3	0.1 µg/m^3	1 µg/m^3	N.A.	Optical Particle Counter	Continuous Flow Active Monitoring	1 L /min	5000 hours
OZPM_2	Suspended Particulate Matters with size less than 10µ (PM_{10})								
OZPM_3	Ultra-fine Particulate Matters with size less than 1µ (PM_1)								
OZPM_4	Total Suspended Particulates (TSP)	0-30 mg/m^3							
OZTEMP_1	Temperature	-40 °C to +125 °C	0.01 °C	-40 °C	N.A.	Solid State Semiconductor Sensing	Passive Monitoring	N.A.	2 years
OZHUM_1	Humidity	100% Rh	0.1 %	0.1 %	N.A.				
OZPRES_1	Barometric Pressure	300-1100 hPa	0.18 Pa	300 hPa	N.A.				

Note - If a custom range and resolution of a sensor is required, please contact our team.

External Modules (optional)

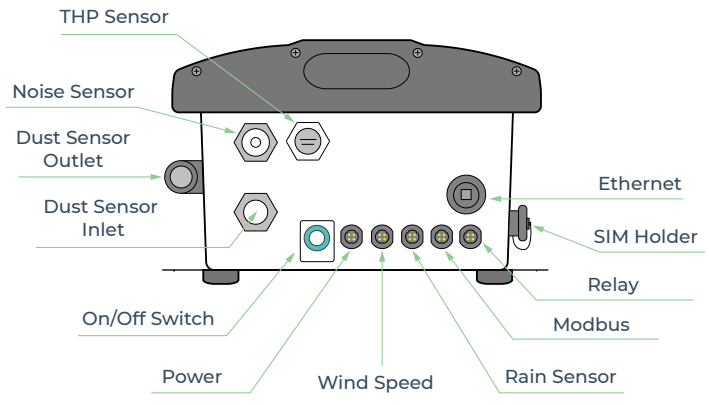
Rain Sensor
- Tipping Bucket
- In mm / inch

Wind Sensor
- Ultrasonic sensor
- 359°, 0-40 m/s

Noise Sensor
- Capacitance
- Upto 140 dB

ID	Parameter	Range	Resolution	Min. Detection	Working Principle	Expected Sensor Life
OZWSD_1	Wind Speed	0-40 m/s	0.1 m/s	0.1 m/s	Ultrasonic	3 years
	Wind Direction	0-359°	1°	1°		
OZRAIN_1	Rainfall Monitoring	N.A.	0.5 mm	0.5 mm	Tipping bucket	
OZN_1	Ambient Noise	Up to 140 dB	1 dB	0.5 dB	Capacitive	2 years

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

Get in touch

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