

Polludrone[®] Pro

Air Quality Monitoring Equipment



Polludrone is a Continuous Ambient Air Quality Monitoring System (CAAQMS). It is capable of monitoring various environmental parameters related to air quality, noise, odour, weather, radiation. It measures the particulate matter and gaseous concentrations in the ambient air in real-time. Using external probes, it can also monitor other auxiliary parameters like traffic, disaster and weather monitoring.



Ultimate
Durability



Weather
Resistant



Compact and
Lightweight



Solar
Powered



Retrofit
Design



Real-Time
Data



Tamper
Proof



Network
Agnostic



Over-The-Air
Updates



3-level
Calibration

Our Technology

The air pollution monitoring equipment has all the air quality sensor modules integrated into a single enclosure. Each sensor module works on different technologies. Our sensing technology works on proven working principles such as NDIR, Electrochemical Analysis, Semiconductor, Optical Measurement, and Laser-Scattering. As a part of our proprietary 'Micro Active Sampling' (e-breathing technology), we also have a sophisticated suction-and-exhaust system for air sample collection and monitoring inside a controlled environment. In other words, this isolates the effect of the external environment on measurement to achieve 13% higher accuracy than the industry standards.

Polludrone[®] Usecases



Airports



Industries

Parameters

ID	Parameter	Range	Resolution	Min. Detection	Drift	Working Principle	Measurement Principle	Sample Rate	Expected Sensor Life	
OZPM_1	Suspended Particulate Matters with size less than 2.5µ (PM _{2.5})	Upto 5000 µg/m ³	0.1 µg/m ³	1 µg/m ³	N.A.	Optical Particle Counter	Active Sampling	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 (PM ₁₀₀)									
OZCO2_1	Carbon Dioxide (CO ₂)	0-5000 ppm	1 ppm	400 ppm	±5 ppm / Year	NDIR		Electrochemical	325 mL per sample	2 years
OZCO_2	Carbon Monoxide (CO)	0-100 ppm	0.1 ppm	0.1 ppm	< 2% / Month					
OZSO2_1	Sulfur Dioxide (SO ₂)	0-20 ppm	0.001 ppm	0.01 ppm	±20 ppb / Year					
OZNO_1	Nitric Oxide (NO)	0-20 ppm	0.001 ppm	0.01 ppm	±50 ppb / Year					
OZNO2_1	Nitrogen Dioxide (NO ₂)	0-20 ppm	0.001 ppm	0.01 ppm	±20 ppb / Year					
OZO3_1	Ozone (O ₃)	0-20 ppm	0.001 ppm	0.01 ppm	±20 ppb / Year					
OZH2S_1	Hydrogen Sulfide (H ₂ S)	0-10 ppm	0.001 ppm	0.01 ppm	±100 ppb / Year					
OZN_1	Ambient Noise	Upto 140 dB	1 dB	0.5 dB	N.A.	Capacitive	Passive Monitoring	N.A.	3 years	
OZLL_1	Light Intensity	Up to 1,00,000 Lux	1 Lux	1 Lux	N.A.	Photo-conductivity				
OZUV_1	UV Radiation (0-12 UVI)	0.1-100,000 uW/cm ²	0.1 uW/cm ²	0.1 uW/cm ²	N.A.					
OZVLI_1	Visible Light Intensity	Up to 5000 Lux	0.1 Lux	0.1 Lux	N.A.					
OZTEMP_1	Temperature	-40 to 125°C	0.01°C	-40 °C	N.A.	Solid state semi conductor sensing				
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.					

Specifications

Size	360mm (H) x 328mm (W) x 200mm (D)
Weight	7.2 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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