

Polludrone[®] Smart

Ambient Air Quality Monitoring Device



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 quality monitoring device 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 have a sophisticated suction-and-exhaust system for air sample collection and monitoring inside a controlled environment. This isolates the effect of the external environment on measurement to achieve 13% higher accuracy than the industry standards.

Polludrone[®] Usecases



Roads And Highways



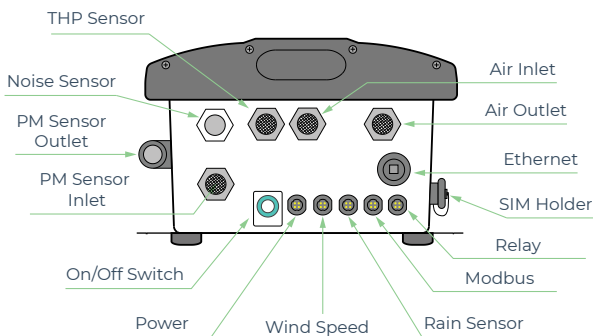
Smart City

Parameters

Sensor	ID	Range	Resolution	Min. Detection	Drift	Working Principle	Expected Sensor Life
Suspended Particulate Matters with size less than 2.5µ (PM _{2.5})	OZPM_1*	Upto 5000 µg/m ³	0.1 µg/m ³	1 µg/m ³	N.A.	Optical Particle Counter	5000 hours
Suspended Particulate Matters with size less than 10µ (PM ₁₀)							
Carbon Monoxide (CO)	OZCO_1*	0-5 ppm	0.01 ppm	0.01 ppm	< 1ppm / year	Electrochemical	2 years
	OZCO_4	0-50 ppm	0.05 ppm	0.05 ppm	< 2% / Month		
	OZCO_2	0-100 ppm	0.1 ppm	0.1 ppm	< 2% / Month		
	OZCO_3	0-1000 ppm	0.75 ppm	0.75 ppm	< 2% / Month		
Carbon Dioxide (CO ₂)	OZCO2_1*	0-5000 ppm	1 ppm	400 ppm	±5 ppm / Year	Non Despersive Infrared	
Nitric Oxide (NO)	OZNO_1*	0-5 ppm	0.001 ppm	0.01 ppm	< 2% / Month	Electrochemical	
	OZNO_2	0-100 ppm	0.5 ppm	0.5 ppm	±50 ppb / Year		
Nitrogen Dioxide (NO ₂)	OZNO2_1*	0-10 ppm	0.001 ppm	0.01 ppm	±20 ppb / Year		
	OZNO2_2	0-100 ppm	0.2 ppm	0.2 ppm	< 2% / Month		
	OZNO2_3	0-500 ppm	0.5 ppm	0.5 ppm	< 2% / Month		
Ozone (O ₃)	OZO3_1*	0-10 ppm	0.001 ppm	0.01 ppm	±20 ppb / Year		
Sulfur Dioxide (SO ₂)	OZSO2_1*	0-10 ppm	0.001 ppm	0.01 ppm	±20 ppb / Year		
	OZSO2_2	0-100 ppm	0.2 ppm	0.2 ppm	< 2% / Month		
	OZSO2_3	0-2000 ppm	5 ppm	5 ppm	< 2% / Month		
Ambient Noise	OZN_1*	Upto 140 dB	1 dB	0.5 dB	N.A.		Capacitive
Temperature	OZTEMP_1*	-40 to 125°C	0.01°C ppm	-40 °C	N.A.	Solid State Semiconductor Sensing	
Humidity	OZHUM_1*	100% Rh	0.10% ppm	0.10%	N.A.		
Barometric Pressure	OZPRES_1*	300-1100 hPa	0.18 Pa	300 hPa	N.A.		
Light Intensity	OZUV_1*	Up to 1,00,000 Lux	1 Lux	1 Lux	N.A.	Photoconductivity	3 Years
UV Radiation		0.1-100,000 uW/cm ²	0.1 uW/cm ²	0.1 uW/cm ²	N.A.		
Visible Light Intensity		Up to 5000 Lux	0.1 Lux	0.1 Lux	N.A.		

* Indicates standard delivery timeline

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, NEMA 4X, IP66, RoHS

Accurate Air Quality Monitoring And Advanced Data Analytics



306, Indraprasth Corporate,
 Prahladnagar, Ahmedabad - India
 contact@oizom.com / hello@oizom.com
 +91 88666 60025 / 39