

# Polludrone<sup>®</sup> 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<sup>®</sup> Usecases



Roads And Highways

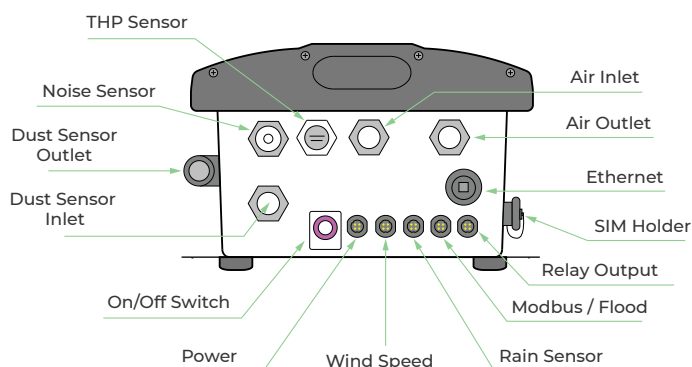


Smart City

# Parameters

ID	Parameter	Range	Resolution	Detection	Drift	Principle	Principle	Rate	Sensor Life	
OZPM_1	Suspended Particulate Matters with size less than 2.5μ (PM <sub>2.5</sub> )	Upto 5000 μg/m <sup>3</sup>	0.1 μg/m <sup>3</sup>	1 μg/m <sup>3</sup>	N.A.	Opticle Particle Counter	Active Sampling	1 L /min	5000 hours	
OZPM_2	Suspended Particulate Matters with size less than 10μ (PM <sub>10</sub> )									
OZCO2_1	Carbon Dioxide (CO <sub>2</sub> )	0-5000 ppm	1 ppm	400 ppm	±5 ppm / Year	NDIR		325 mL per sample	2 years	
OZCO_2	Carbon Monoxide (CO)	0-100 ppm	0.1 ppm	0.1 ppm	< 2% / Month	Electrochemical				
OZSO2_1	Sulfur Dioxide (SO <sub>2</sub> )	0-10 ppm	0.001 ppm	0.01 ppm	±20 ppb / Year					
OZNO_1	Nitric Oxide (NO)	0-5 ppm	0.001 ppm	0.01 ppm	±50 ppb / Year					
OZNO2_1	Nitrogen Dioxide (NO <sub>2</sub> )	0-10 ppm	0.001 ppm	0.01 ppm	±20 ppb / Year					
OZO3_1	Ozone (O <sub>3</sub> )	0-20 ppm	0.001 ppm	0.01 ppm	±20 ppb / Year					
OZN_1	Ambient Noise	Upto 140 dB	1 dB	0.5 dB	N.A.	Capacitive		Passive Monitoring	N.A.	3 years
OZLI_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 <sup>2</sup>	0.1 uW/cm <sup>2</sup>	0.1 uW/cm <sup>2</sup>	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	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.					

# 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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