

Odour Monitoring System



Odosense is the real-time odour emission tracking solution. Odosense continuously detects, measures and monitors the odourful gaseous contaminants. Oizom Odour Monitoring Solution comprises of a network of e-noses (Odosense) positioned on the periphery of the site. The solution incorporates Odour Atmospheric Dispersion Modelling for predicting odour impact on the surrounding area depending on meteorological conditions. With the help of meteorological data, Odosense can trace the odourant dispersion plume incited by conditions like wind speed and wind direction. Odosense is a fully solar-powered solution with wireless data transmission. This makes it an ideal choice for landfill sites, wastewater treatment facilities, fertilizers, paper-pulp industries and soil-treatment sites, etc.

Product Features



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

Our odour monitoring device works on proven working principles such as NDIR, PID, Electrochemical Analysis, Semiconductor, Optical Measurement. 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. This isolates the effect of the external environment on measurement to achieve 13% higher accuracy than the industry standards.

Product Usecases



Landfill / Dumpyard

Diffusion of odorful gases from the landfills/dumpyard can create nuisance in the neighborhood. The odour level can be monitored to carry out precautionary steps for odour suppression.

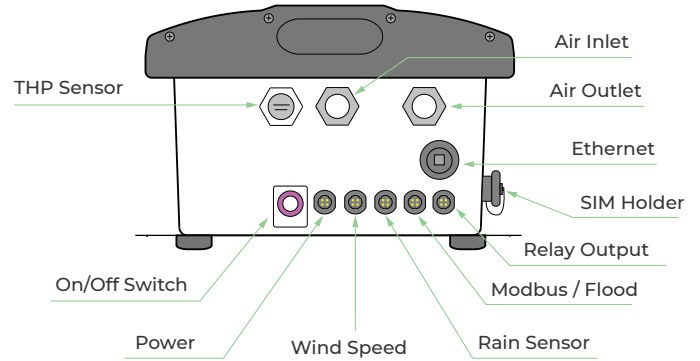


Industries

Odourful gaseous emission from industries like agro-chemical, pharmaceutical, paper-pulp, sugar, etc. can be monitored to make data-driven measures for minimizing their fatal effect.

General 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 |



Technical Specifications

| | |
|------------------------|---|
| Avg. Power Consumption | 5 Watt (Actual consumption depends upon the number of parameters) |
| Power Input Options | External 110-230V AC 50-60Hz, 40Watt Monocrystal Solar Panel |
| Operating Temperature | -20 °C to 60 °C |

| Connectivity Options | | Specification |
|----------------------|--------------|--------------------------------|
| Wireless | GSM | Global 2G / 3G / 4G |
| | LoRa | 868 MHz / 915 MHz |
| | LTE | CAT-M1 |
| | NB-Iot | CAT-NB1 |
| | Sigfox | 868 to 869 MHz, 902 to 928 MHz |
| | Wifi | AP Mode and Station Mode |
| Wired | Ethernet | Static / DHCP Configuration |
| | MODBUS | RS485 RTU / TCP |
| | Relay Output | 2 Channel |

Sensing Parameters

| ID | Parameter | Range | Resolution | Min. Detection | Drift | Working Principle | Measurement Principle | Sample Rate | Expected Sensor Life |
|-----------|---|----------------|------------|----------------|-----------------|-----------------------------------|-----------------------|-------------------|----------------------|
| OZH2S_1 | Hydrogen Sulfide (H ₂ S) | 0-10 ppm | 0.001 ppm | 0.01 ppm | ±100 ppb / Year | Electrochemical | Active Sampling | 325 mL per sample | 2 years |
| OZNH3_1 | Ammonia (NH ₃) | 0-20 ppm | 0.3 ppm | 0.3 ppm | < 2% / Month | | | | |
| OZCH2O_1 | Formaldehyde (CH ₂ O) | 0-10 ppm | 0.05 ppm | 0.05 ppm | < 2% / Month | | | | |
| OZCH3SH_1 | Methyl Mercaptan (CH ₃ SH) | 0-10 ppm | 0.1 ppm | 0.1 ppm | < 2% / Month | | | | |
| OZNO2_1 | Nitrogen Dioxide (NO ₂) | 0-20 ppm | 0.001 ppm | 0.01 ppm | ±20 ppb / Year | | | | |
| OZSO2_1 | Sulfur Dioxide (SO ₂) | 0-20 ppm | 0.001 ppm | 0.01 ppm | ±20 ppb / Year | | | | |
| OZCl2_1 | Chlorine (Cl ₂) | 0-20 ppm | 0.05 ppm | 0.05 ppm | < 2% / Month | PID | N.A. | 5000 hours | |
| OZTVOC_1 | Total Volatile Organic Compounds (TVOC) | 0-40 ppm | 0.001 ppm | 0.005 ppm | N.A. | | | | |
| 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. | | | | |

External Modules (optional)



Accurate Air Quality Monitoring And Advanced Data Analytics



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