

# Odosense<sup>®</sup> Smart

Odor Monitoring Device



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. With the help of meteorological data, Odosense can trace the odourant dispersion plume incited by conditions like wind speed and wind direction.



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.

## Odosense<sup>®</sup> Usecases



Landfills



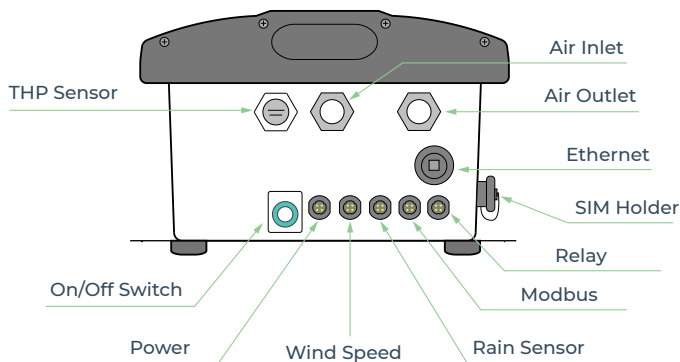
ETP

# Parameters

| Sensor                                 | ID         | Range        | Resolution | Min. Detection | Drift           | Working Principle                 | Expected Sensor Life |
|--|------------|--------------|------------|----------------|-----------------|-----------------------------------|----------------------|
| Sulfur Dioxide (SO <sub>2</sub> )      | OZSO2_1*   | 0-10 ppm     | 0.001 ppm  | 0.01 ppm       | ±20 ppb / Year  | Electrochemical                   | 2 years              |
|  | OZSO2_2    | 0-100 ppm    | 0.2 ppm    | 0.2 ppm        | < 2% / Month    |                                   |                      |
|  | OZSO2_3    | 0-2000 ppm   | 5 ppm      | 5 ppm          | < 2% / Month    |                                   |                      |
| Hydrogen Sulfide (H <sub>2</sub> S)    | OZH2S_1*   | 0-1.5 ppm    | 0.001 ppm  | 0.01 ppm       | ±100 ppb / Year |                                   |                      |
|  | OZH2S_2    | 0-50 ppm     | 0.05 ppm   | 0.05 ppm       | < 2% / Month    |                                   |                      |
|  | OZH2S_3    | 0-200 ppm    | 0.2 ppm    | 0.2 ppm        | < 2% / Month    |                                   |                      |
|  | OZH2S_4    | 0-2000 ppm   | 2 ppm      | 2 ppm          | < 2% / Month    |                                   |                      |
| Ammonia (NH <sub>3</sub> )             | OZNH3_1*   | 0-20 ppm     | 0.3 ppm    | 0.3 ppm        | < 2% / Month    |                                   |                      |
|  | OZNH3_2*   | 0-100 ppm    | 0.3 ppm    | 0.3 ppm        | < 2% / Month    |                                   |                      |
|  | OZNH3_3    | 0-1000 ppm   | 2 ppm      | 2 ppm          | < 2% / Month    |                                   |                      |
| Methyl Mercaptan (CH <sub>3</sub> SH)  | OZCH3SH_1* | 0-10 ppm     | 0.1 ppm    | 0.1 ppm        | < 2% / Month    |                                   |                      |
| Total Volatile Organic Compounds (VOC) | OZTVOC_1*  | 0-40 ppm     | 0.001 ppm  | 0.005 ppm      | N.A.            | Photo Ionization Detection (PID)  | 5000 Hours           |
|  | OZTVOC_2   | 0-200 ppm    | 0.05 ppm   | 0.05 ppm       | N.A.            |                                   |                      |
| Temperature                            | OZTEMP_1*  | -40 to 125°C | 0.01°C     | -40 °C         | N.A.            | Solid State Semiconductor Sensing | 2 years              |
| Humidity                               | OZHUM_1*   | 100% Rh      | 0.1%       | 0.1%           | N.A.            |                                   |                      |

\*Indicates standard delivery timeline.

# Specifications



|                       |   |
|-----------------------|---|
| <b>Size</b>           | 360mm (H) x 328mm (W) x 200mm (D)                               |
| <b>Weight</b>         | 7.2 Kg (instrument weight)                                      |
| <b>Material</b>       | Aluminum Magnesium Alloy, Mild-steel (With Powder Coating), FRP |
| <b>Certifications</b> | CE, FCC, NEMA 4X, IP66, RoHS                                    |

## Communication

|                             |  |
|-----------------------------|--|
| <b>Data Interval</b>        | 2-30 (configurable) minutes  |
| <b>Data-push Protocol</b>   | HTTP post request to host-server   |
| <b>Data-pull</b>            | HTTP request on device IP  |
| <b>Firmware Updates</b>     | Over-The-Air Firmware Update   |
| <b>Standby Connectivity</b> | GSM (2G/3G/4G) for remote diagnosis, FOTA updates, and cloud calibration |

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

**Accurate Air Quality Monitoring And Advanced Data Analytics**



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