

OlfoSense™

Environmental Odor network

From the experience gained in 15 years of activity in the complex world of odors, AIRSENSE Analytics GmbH (D) and PCA Technologies Srl (I) have developed OlfoSense, the new control tool designed to create a professional Network for odor leakage monitoring over large areas and at the perimeter of plants. The new OlfoSense is the most technologically advanced tool for the determination of odour levels and other important chemical volatile compounds; concentration and meteorological data are used to display in real time the effects of the odor/compounds spreading on field. The network is connected to a central server for an easy management.

OlfoSense controls **odor level** (OU/m³), total **VOCs** (Volatile Organic Compounds) concentration and one of the following compounds: **H₂S, NH₃**.



Landfill, composting and anaerobic digestion plants

For a large area monitoring, a landfill for instance, OlfoSense units are displaced around the perimeter and all data collected are sent via UMTS / WIFI / LAN connection to the control room, where users can set alarm thresholds and be alerted. In other words, you have anytime, anywhere and in real time the environmental situation "in your hands".

A similar approach is used to control composting plants, anaerobic digestion plants and other production sites where it is necessary or desirable to have a continuous measurement of odor leakage 24 hours a day.

Chemical and petro-chemical plants

Chemical and petrochemical plants bring high impacts and environmental risks; citizens complain about odors and this perception increases concern and fear for their health.

The OlfoSense Network guarantees protection in these dangerous cases, where the Government Office of Environmental Protection can immediately react if thresholds are exceeded.

Quality of life in big cities

Big cities have to face a lot of problems, and production of air pollutants coming from cars and industrial realities is one of the biggest.

OlfoSense is a versatile device, and it can be successfully applied for urban air monitoring, thus granting a continuous control of citizens' Quality of Life.

OlfoSense and software SMIT

A weather station can be interconnected with the OlfoSense network.

Wind speed and direction, temperature, radiation, pressure and humidity integrate the measurement data; afterwards the SMIT software displays in real time how smell falls in the area, showing the diffusion plume impact on sensitive receptors nearby.

The diffusion plume is made with isolines which show the dilution of spreading compounds.

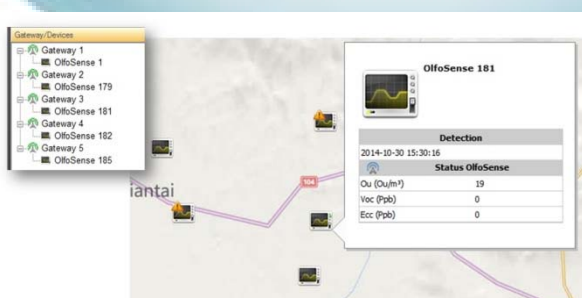
OlfoSense Network architecture

The diagram shows the OlfoSense network data flow. The customer is free to choose which type of connection between OlfoSense units and the control room best fits his needs

Data transfer may occur by UMTS, WIFI or LAN; a ZigBee module can be added for interconnection between devices.

Remote control

Data results are available on the PC through the web platform **Olfo-Server** or **OlfoClient** application. Both solutions provide an easy-to-use interface, with charts and tables.



Network Security

For security reasons, once the first setup is done (data entry process, measurement parameters, etc..), the network is "locked" to prevent unauthorized intrusions (AES 128-bit security).

The network is also protected from attacks coming from cloned signals (copy of the original posts created to gain unauthorized access to the network).

Alarms

It is very easy to set threshold values for each OlfoSense by remote control; if thresholds are exceeded, OlfoSense sends an alarm to the operator or to the local authorities. In these cases, it's also possible to activate an external sampling system (canister, ecc.) for chemical-toxicological analysis.

TECHNICAL SPECIFICATIONS

Detectors inside

- ✚ MOS Sensor Array.
Each sensor is calibrated to a specific temperature.
- ✚ VOC detector: PID 10.6 eV
- ✚ H₂S detector: ECD electrochemical cell
- ✚ NH₃ detector: ECD electrochemical cell

Monitoring parameters

- ✚ Measure time for cycle:
from 30 s. to infinite.
- ✚ Number of cycles in sequence:
up to infinite.
- ✚ Flush time: from 50 s. to 7200 s.
- ✚ Size: 50 x 40 x 20 cm
- ✚ Power: 25 W - 220V/50Hz
or solar pannel (optional).
- ✚ Software: OlfoMuster (setting), OlfoServer & OlfoClient (remote control)

OlfoSense is built according to your specific requirements: please contact us to give life to your OlfoSense Network !

OlfoSense is made in collaboration with
Airsense Analytics GmbH www.airsense.com

AIRSENSE
ANALYTICS

PCA
TECHNOLOGIES
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