eLICHENS

Sensor technology
to the next level.

Overview

eLichens mission is to detect and monitor environmental gases and thus contribute to saving lives in hazardous environments, preventing gas leak explosion in residential & industrial environment, monitoring CO2 level in schools to lower Covid-19 risks.

With the mission of responding to the associated climate issues, eLichens relies on a portfolio of patents and expertise that enable it to develop and market innovative and disruptive NDIR sensors and industrial IOT devices.

eLichens is headquartered in Grenoble, France with offices in Paris, France and Texas, USA.

Summary

Cranberry & Mulberry

1 & 4-Series
Form factor

patented NDIR gas sensor

CH4 LEL CO2 R32

+ Propane, Butane, & other Hydrocarbons

MADE IN FRANCE

ATEX IECEx GTI ENERGY UL LISTED CSA

Description

- Cranberry sensors (1-series form factor) and Mulberry sensors (4-series form factor) are eLichens' cutting-edge NDIR (Non-dispersive Infrared), dual-channel architecture made for CO2, CH4, LEL & Refrigerants.
- They are based on eLichens' patented technology including a proprietary IR micro-source, patented optical design and advanced signal processing algorithms.
- eLichens' sensors have the lowest power consumption and the highest stability and superior life time (> 20 years).

Features & Benefits

- Designed to detect and monitor the presence of Hydrocarbons, Methane, Carbon Dioxide (CO2) and Refrigerants in real-time.
- Offering two measurements per second, Cranberry Sensors detect and monitor gas leaks as they occur.
- Cranberry NDIR sensors are the only 1-Series standard.
- eLichens sensors are certified FCC, CE, ATEX, IECEx, CSA, GTI, UL Listed, RoHS Compliant.
- eLichens sensors' key differentiators allow the development of innovative battery-powered products.

Our technology

- NDIR is an industry term for "Non-Dispersive Infra-Red", and is the most efficient technology to measure hydrocarbons, methane and carbon dioxide (CO2).
- NDIR gas sensors integrate an IR light, which is absorbed by gas molecules, and a detector that measures the absorption.
- Cranberry & Mulberry NDIR gas sensors use dual channel technology to get the most accurate measurement and to guarantee driftless.
- eLichens sensor are auto-calibrated.
- The time zero calibration to the desired gas is carried out in our labs in Grenoble, France.

Aura-CO2

Indoor air quality monitor

Powered
by eLichens' patented
CO2 Gas Sensor

MADE IN FRANCE

CE FC

CO2 · Temp. · Humidity · Pressure

5+ YEARS
Autonomy

Description

- Aura CO2 is a battery-operated CO2 monitor that continuously measures the CO2 concentration, temperature, relative humidity and pressure. It allows aeration and ventilation recommendations to be observed in classrooms, residences and offices to ensure satisfactory air renewal.
- Aura CO2 integrates eLichens' high performances and low power CO2 patented NDIR sensor.
- High accuracy, no recalibration, no recharging & no maintenance required.
- Aura CO2 uses both LoRaWAN network and Bluetooth Low Energy for connectivity.
- End users can customize network on/off, alarm thresholds, sound & visual alarms and more through the eLichens Aura CO2 smartphone application.
- Aura CO2 is a battery-operated device with Lithium Batteries (2xAA), no need for any power cable.

Features & Benefits

Product:

- Real-time CO2, ambient temperature, relative humidity and atmospheric pressure sensors.
- ePaper screen for a clear display of relevant information.
- Configurable visual and audible CO2 level alarms.
- LoRaWAN and/or Bluetooth Low Energy (BLE) connectivity.
- Compact size, wall mounted offering easy installation and being maintenance free.
- More than 5 years run time on original batteries.

Ecosystem:

- Easy configuration with our iOS/Android mobile application and BLE.
- Unlimited cloud storage, accessible through API and dashboards.
- Web and mobile data visualization applications.

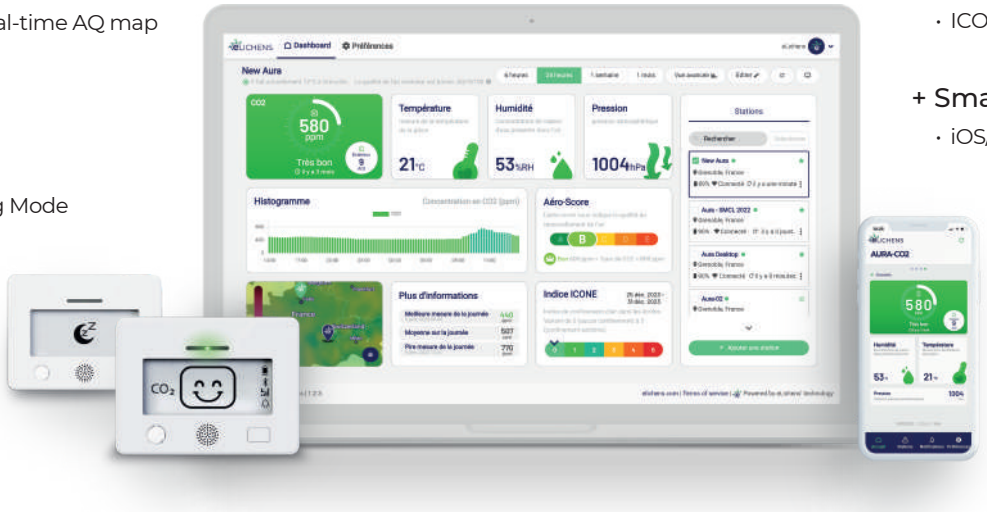
eLichens Aura-CO2 Dashboard

+ Outdoor air quality

- eLichens real-time AQ map

+ 3 Displays

- Expert Mode
- Smiley Mode
- Power saving Mode



+ IAQ Indexes

- ICONE index + Air-Score

+ Smartphone app.

- iOS/Android

Avolta

Natural gas leak detector

Powered
by eLichens' patented
CH4 Gas Sensor

MADE IN FRANCE

ATEX

GTI ENERGY

LEL CH4 + H2 Propane Butane Temp. Humidity

10+ YEARS
Autonomy

Description

- Avolta is a wireless, battery-operated, Natural Gas Detector designed for use in both residential and industrial environments.
- Avolta detects, monitors and alerts gas leaks.
- Avolta integrates eLichens' CH4 sensor, a cutting-edge NDIR (Non-dispersive Infrared) dual-channel sensor architecture.
- Avolta Natural Gas Detector has a 10+ years of autonomy on battery, with the sensor constantly ON and a configurable wireless heartbeat message.
- Avolta benefits from high selectivity of the gas of interest and suffers no corrosion, no saturation nor poisoning.
- Avolta offers the lowest cost-of-ownership on the market

Choose between 2 versions:

- Avolta Connect (wireless communication protocol)
- Avolta (not connected version)

Features & Benefits

Product:

- eLichens' ultra-high CH4 selectivity guarantee no false alarm detection.
- Best sensitivity with configurable alarm threshold setting as low as 10%LEL.
- Avolta "Connect" is configured for AMI, supporting LoRaWAN, Itron Milli5, Bluetooth Low Energy, and soon NB-IoT LTE-M.
- Battery operated, >10-year lifespan.
- Fast response time, driftless and no recalibration required.
- Avolta integrates Temperature & Humidity sensors.
- Integrated audible alarm (buzzer & speaker) & visual alarms (3 colors LED).
- Ingress protection IP54.
- Tested, validated and selected by the GTI ENERGY.

eLichens Avolta Dashboard

Dashboard Features

- Avolta Connect on worldmap
- Groups alerts status
- Stations details & Histogram
- ... and more

+ eLichens Cloud

- Unlimited online data storage
- Data & Charts
- API available

+ Data Access

- All historical data,
- by time range and without limit date

+ Export

- All data can be transferred into CSV files

About eLichens

Founded at the end of 2014, eLichens' mission is to provide relevant and comprehensive information about the air we breathe. Our company relies on a portfolio of patents, know-how and skills that enable a complete air quality solution (sensors and services) and address both consumer electronics and industrial markets.

eLichens develops connected IoT solutions for gas sensing through a complete offering of made in France CO2 monitors and CH4 alarm detectors in which data fusion, models & analytics are powered by its patented NDIR Smart Gas Sensors.

eLichens has offices in Grenoble, Paris, and the United States (Texas).

Safe use guidance & Operating principles

At eLichens, we prioritize accuracy and reliability in the design of our sensors and IoT products, adhering to strict quality standards for safe and reliable operation. We encourage you to thoroughly read the user manual before using our products and to follow our recommendations for optimal performance. Our gas sensors are calibrated in our laboratory and feature integrated auto-calibration technology, eliminating the need for any maintenance. If you encounter any problems, our customer support team is available to assist you. Reach us at **info@elichens.com** for any questions or concerns.

For more information

SCAN THIS QR CODE
to access gas sensors datasheets

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