![EC Sense — Easy Gas Sensors]
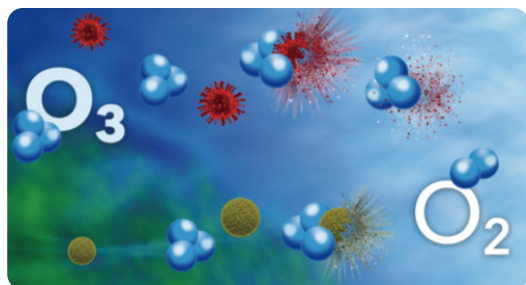
ECgaspoint Ozone

Wireless Gas Sensor Device

- Ozone cleaning process monitoring
- Ensuring workplace safety and health
- Ppb concentration level detection
- 40 years of experience in gas sensor technology

Ozone Cleaning

We hear a lot about ozone pollution or how the ozone layer protects the planet from UV rays, but ozone has another benefit: ozone cleaning.
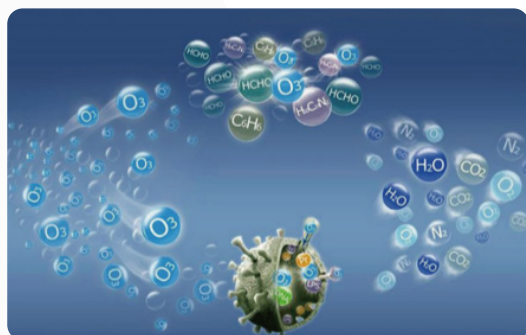
Ozone Cleaning faces the Coronavirus

This disinfection and cleaning technique is increasingly being practiced by professionals, especially since the beginning of the Covid-19 crisis.The technique is particularly popular because it makes it possible to easily carry out a complete decontamination of complex places to disinfect such as offices, hotel, hospital, public reception areas or even public transportation. For more information, see the validating report "Laboratory for Microbiology and Hygiene in Hoyerswerde".

What is Ozone Cleaning?

Ozone (O_3) cleaning is a simple technique: it consists in supplying ozone gas in a room through an ozone generator and letting it act until it decomposes into oxygen (O_2). Due to its oxidizing power, O_3 disinfects by eradicating viruses, bacteria, parasites and fungi that are present on all surfaces of a room and in the air.

Advantages of Ozone Cleaning Technology

- O_3 destroys microorganisms of all kinds (bacteria, viruses, spores) and sanitizes all surfaces as well as ambient air contaminated by the coronavirus.
- Ozonators are available at affordable prices for all businesses and public organizations.
- It is easy to use and it destroys odors quickly.
- It is a non-polluting technique.

Why is the Measurement of Ozone Important?

Ozone is a very powerful oxidant used for air purification processes or wastewater treatment. It is also an environmentally friendly oxidizing agent, but can be harmful to health at high concentrations.

During Ozone Cleaning

To be effective, the ozone cleaning process requires an ozone concentration of 3 to 20 ppm in the ambient air of the relevant enclosed environment. During the ozone cleaning process, when people are not allowed to enter the room, the ozone concentration can still be measured and controlled to evaluate the cleaning efficiency.

After Ozone Cleaning

Use ECgaspoint to control the ozone concentration. When the concentration drops below 0.06 ppm, people can re-enter the room.

Product Overview

ECgaspoint continues to monitor the ozone concentration and is able to track concentration changes in real-time.

ECgaspoint has a standard MQTT protocol with WiFi and easily connects to a local WiFi network. It is suitable for different ozone cleaning systems to evaluate the purification efficiency.

Parameter

Ozone (O₃)
Temperature
Relative Humidity

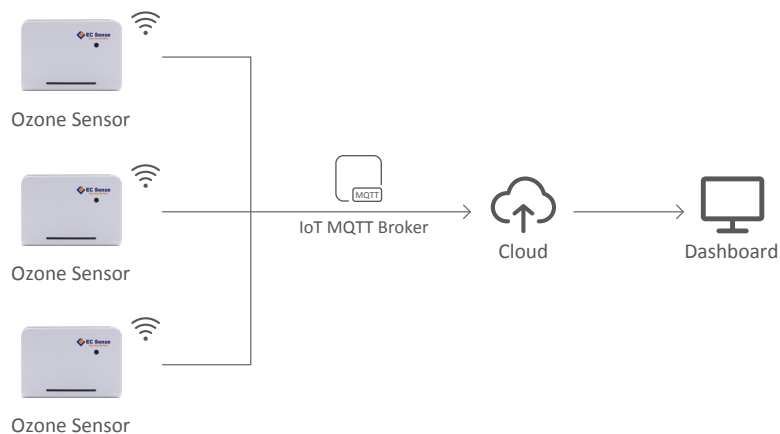O₃   Temperature   Relative Humidity

Easy Installation

ECgaspoint is suitable for any indoor space of a building and can be installed quickly.

The measurement data is transferred to the dashboard via WiFi.

Ozone Sensor

Ozone Sensor

Ozone Sensor

IoT MQTT Broker   Cloud   Dashboard
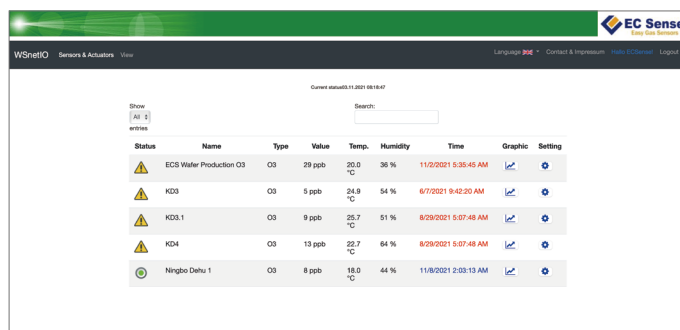
Key Sensing Technology from EC Sense

ECgaspoint uses the Solid Polymer Electrochemical Sensing Technology, which is for industrial applications. It employs a three-electrode arrangement - the working, the counter and the reference electrodes - in which concentration measurements can be performed continuously and the sensor operates at a fixed potential. The gas of interest (target gas) diffuses through a diffusion barrier, such as a capillary, into the cell to the working electrode, where an electrochemical reaction takes place. Oxidation and reduction reactions are happening simultaniously. The current flowing through the cell is direct proportional to the concentration of the target gas. A reference electrode keeps, with a potentiostat, the potential constant together.
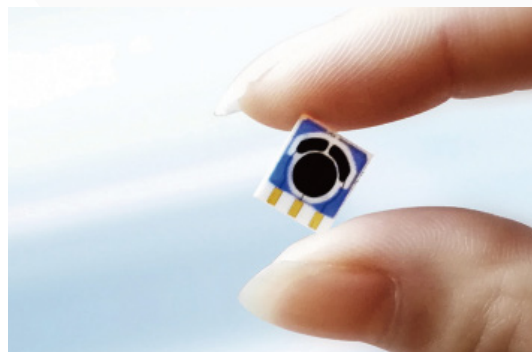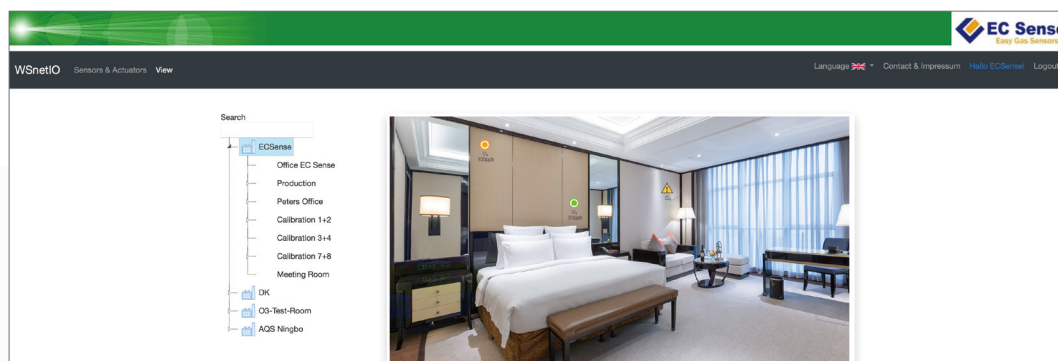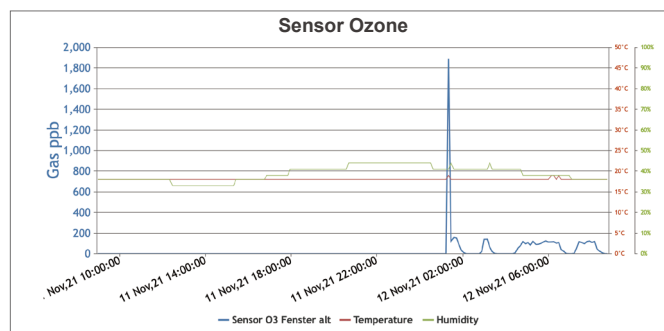

WSnetIO Cloud Systems

Real-time with dashboard

- Sensor names can be assigned individually, for quick location of sensors.
- 100% web-based without installation, the dashboard uses a simple web browser.
- Easy to navigate every room or location of the building.
- Define alarm levels.
- Easy to add room or location pictures for clear visualization.
- View real-time air quality data and history (1 hour/day/week/month/year, all data) by concentration number and graph.
- Local data saving, browser based setup and visualization on any PC.
- Multiple choice of operating languages.

EC Sense
Easy Gas Sensors

Typical Applications

❚ **ECgaspoint solution for all commercial, public and industrial buildings**

- **Ozone Cleaner**
- **School**
- **Train Station**
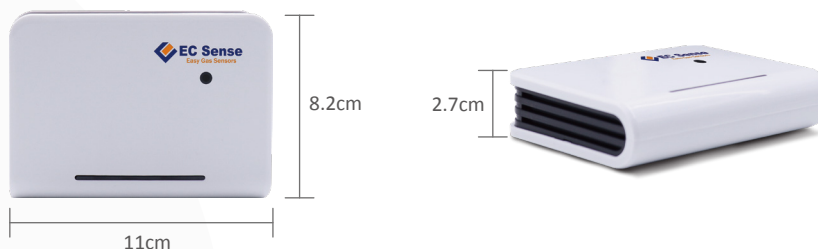- **Shopping Mall**
- **Laboratory**

- **Hospital**

- **Hotel**

- **Sport Center**

Mechanical Drawing

8.2cm

2.7cm

11cm

Technical Specifications

Ozone Sensor

Measurement Range	0-5000ppb / 0-100ppm
Resolution	10ppb / 0.1ppm
Accuracy	±5% full scale at 25℃ within 35-80%RH

Temperature & Relative Humidity Sensor

Parameter	Temperature	Humidity
Range	-40 to 85℃	0-100% RH
Resolution	0.01℃	0.01% RH
Accuracy	± 0.2℃	± 2% RH
Repeatability	0.1℃	0.1% RH
Response Time	< 5 to 30s @ t63%	8s @ t63%
Long-Term Drift	< 0.02℃/year	< 0.25% RH/year

Order Information

05-ECgaspoint-01

General Specifications

Power Supply	5V DC, 0.3 A
Dimensions	H 110 x W 82 x D 27 mm
Data Transfer & Response Time	5 sec.
Operating Temperature	0 to 50℃
Operating Humidity	15 to 95% R.H.(Non-condensing)
Operating Pressure	800 to 1200 hPa
Wireless Technology	802.11 b/g/n_2.4GHz
Warm-Up Time	< 60s
Storage Conditions	0 to 20℃
Expected Lifetime	> 5 years
Housing Material	ABS
Weight	< 100g
Installation	Hanging
Supplied Accessories	USB power adapter Micro USB to USB cord

Disclaimer

The EC Sense performance data stated above is based on data obtained under test conditions using the EC Sense gas distribution system and AQS test software. In the interest of continuous product improvement, EC Sense reserves the right to change design features and specifications without notice. We are not responsible for any loss, injury or damage caused by this. EC Sense assumes no responsibility for any indirect loss, injury or damage resulting from the use of this document, the information contained therein or any omissions or errors herein. This document does not constitute an offer to sell. The data it contains are for informational purposes only and cannot be considered a guarantee. Any use of the given data must be evaluated and determined by the user to comply with federal, state and local laws and regulations. All specifications outlined are subject to change without notice.

Warning

EC Sense sensors are designed for use in a variety of environmental conditions. However, due to the principles and characteristics of solid polymer electrochemical sensors and to ensure normal use, users must strictly follow this article during storage, assembly and operation of the module. General-purpose PCB circuit board application methods and illegal applications / violation of the application will not be covered by the warranty. Although our products are highly reliable, we recommend checking the module's response to the target gas prior to utilization to ensure on-site use. At the end of the products service life, please do not discard any electronics in the domestic waste, instead follow the local governments electronic waste recycling regulations for disposal.

Business Centre
Europe and the rest of the world
EC Sense GmbH
Wangener Weg 3
82069 Hohenschäftlarn, Germany
Tel: +49(0)8178-99992-10   Fax: +49(0)8178-99992-11
Email: office@ecsense.com
www.ecsense.com   www.ecnose.de

Business Centre
Asia
Ningbo AQSystems Technology Co., Ltd.
F4-17 Building, Zhong Wu Technology Park No.228,
Jin Gu Bei Road, Yinzhou District NingBo,
Zhejiang Provence, P.R. China   Post Code: 315100
Tel: +86(0)574 88097236, 88096372
Email: info@aqsystems.cn
www.ecsense.cn, www.ecnose.de