Ziggy air

Monitoring Indoor Air Quality

Indoor Air Quality (IAQ) has a major impact on occupants health, comfort and work performance. We spend 90% of our time indoors

...we are what we breathe

Serious health problems may result from poor IAQ, such as increased transmission of airborne infections (e.g. Covid19 and SARS), legionnaires' disease and can contribute to asthma attacks. This has a knock on effect of employee absenteeism and potential litigation.

Buildings with good IAQ on the other hand contribute to the health and productivity of building users and increases their work and learning.

- ✓ Reduced Absenteeism
- ✓ Reduced Risk of Litigation
- ✓ Increased Employee Wellness
- ✓ Increased Productivity & Learning

The solution to improving IAQ starts with measuring and monitoring the indoor air on a continuous basis.

The great news is that your building can be fitted out in one day using ZiggyAir's Indoor Air Quality Monitoring and Alert System.

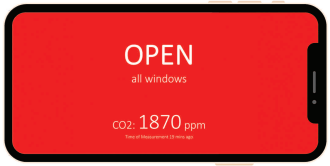
Using state-of-the-art high quality wireless sensors, it is an incredible cost effective solution.

With real time monitoring and alerting, you will know immediately when the air quality is faltering.

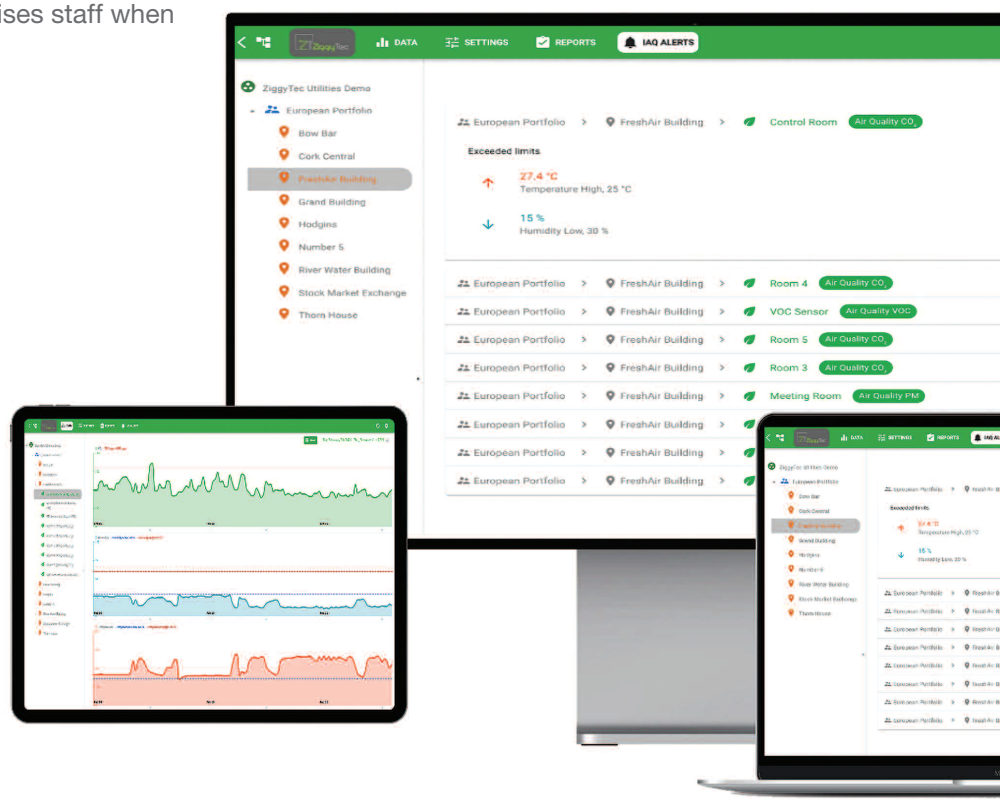
A smart tablet can be mounted locally on the wall of each room with a traffic light display which advises staff when to open or close the windows.

You can close some windows if you wish as ventilation is currently good

CO2 levels are rising in the room you should open some windows



You definitely should open all windows and allow the fresh air in to circulate



IAQ Monitoring and Alerting

A comprehensive list of parameters that need to be measured and monitored are:

- Ventilation Levels
- Humidity Levels
- Temperature Levels
- Dust Pollution
- Gas Pollution

Ventilation Levels

Ensuring that the air in the building is continuously replaced with fresh clean air is crucial to diluting viral loads (including COVID19) in the air. Carbon Dioxide concentration is a very accurate measurement of how much fresh air is circulating in a building.

Outside, in the fresh air, the level of CO2 is 400ppm (parts per million). People breathe in oxygen and breath out CO2, so in indoor occupied spaces, the level of CO2 will naturally rise. With good indoor ventilation, the level of CO2 should stay less than 800ppm. If the readings go higher than 800ppm then there isn't enough ventilation in your premises.

Poor ventilation leads to an increased virus load in the air which in turn increases the transmissibility of viruses indoors. Also high levels of CO2 in a building, increases headaches, dizziness, restlessness, tiredness, increased heart rate and elevated blood pressure. Employees are less productive. Good ventilation is key to employee wellness.

Humidity Levels

Excessive dampness or moisture in buildings is responsible for a range of problems including mould, dust mites and bacteria; and exposure to damp environments is associated with respiratory problems including asthma attacks. Very low humidity is linked to the spread of viruses.

Temperature Levels

Optimum temperature levels in an office environment should be in the range 20 to 22 Degrees Celsius.

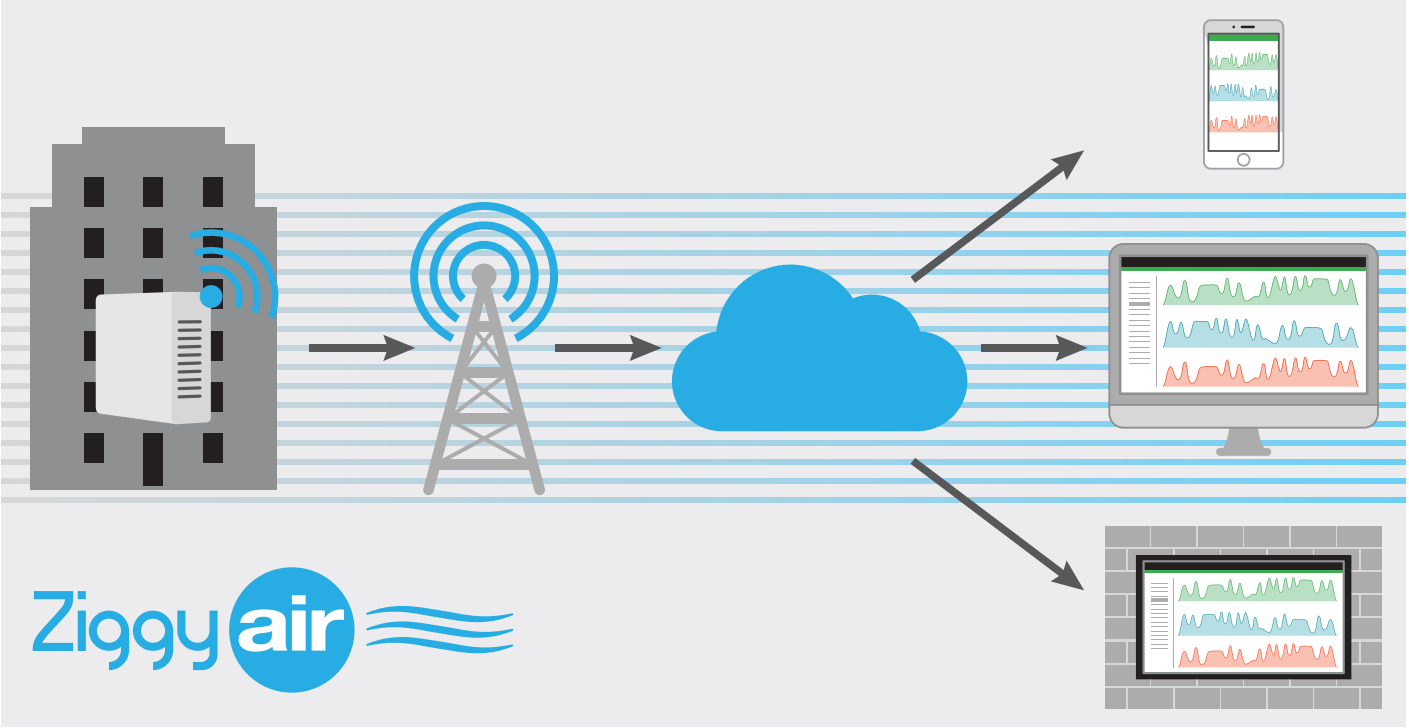
Dust Pollution

Dust pollution also known as Particulate Matter (PM,) is an air-suspended mixture of both solid and liquid particles and is listed as 'criteria pollutants' by the World Health Organisation (WHO). These particles include dust, diesel exhaust, pollen and mould spores.

Gas Pollution

Gas pollution or Volatile Organic Compounds (VOC) as it is more commonly known, are poisonous gaseous chemicals emitted from certain solids and liquids with common sources being paints and coatings, building materials, cleaning supplies, glue used in furniture manufacture as well as various office equipment.

ZiggyAir's Technology



- ZiggyAir uses calibrated and certified wireless sensors for all its IAQ measurements. Our sensors uses solid-state non-dispersive infrared (NDIR) absorption and laser scattering technology to accurately and reliably measure the IAQ.
- Our sensors are powered by long life batteries which means they can be placed anywhere within a customer's building without requiring access to a power supply.
- The sensors transmit measurements directly to a global IOT Network. It is secure and completely independent from the local IT infrastructure.
- The ZiggyPortal gives you instant access to your indoor air quality and utility data (ZiggyUtility) which can be viewed in a web browser (ZiggyPortal), on a screen on the wall (ZiggyDisplay) or easily connected via API (ZiggyAPI) into other software systems.

Benefits of ZiggyAir

Live Displays & Alerts

We monitor and record your indoor air quality and energy usage, 24/7, and alert you when things aren't right. We continuously analyse the data and classify the result as being good, moderate or poor. We push alerts to your mobile devices, kiosks or display monitors. This gives occupants and managers instant access to the data that matters. It will identify problem areas/period in a building e.g. a high CO2 level may be recorded because too many people are in a particular room.

Independent IoT Network

ZiggyTec uses an IoT network provider to get the data from our devices straight into the cloud bypassing all local IT infrastructure. This is a key security advantage of our technology; we don't tap into your WiFi or Internet. You don't need to get IT involved in the process.

Because these devices don't require any communications connections in your building, means that installations are very fast. Normally we can commission an office within one day.

Battery-Powered

All our devices are battery powered and have a battery life ranging from 5 to 7 years. We continuously monitor battery levels and long before they run out, we will dispatch an engineer to your premise to replace the batteries. This is done at our cost and is all part of the service.

Being battery operated, means that we don't tie up your valuable sockets or have cables trailing around you building. Installation of the devices is made easy as there is no wiring involved.

As the sensors do not need to be located close to a power socket, we have the flexibility to place the sensors in the most appropriate locations in the building. So, for example when measuring air quality, in order to get an accurate reading, it is important that the sensors are placed away from doors, windows and ventilation ports. As we are not limited to locate these sensors close to a power socket, we can find the most accurate place for the sensor in the room.

Data Security

All ZiggTec's customer data is stored on Amazon's Simple Storage Service (Amazon S3). Amazon S3 is designed for 99.5% of data durability because it automatically creates and stores copies of all S3 objects across multiple systems. All data "in transit" and "in storage" is encrypted using a combination of https and SSE-KMS. This means ZiggyTec's data is always backed up, secure, available when needed and protected against failures, errors, and threats.

ZiggyAPI

The ZiggyAPI is a secure HTTPs Restful API which allows you to safely download all your historic data as often as you choose. ZiggyAPI is part of the standard service - there is no extra charge.

ZiggyPortal

The ZiggyPortal is a web application that collects and organises data from all the devices and displays it clearly in a single dashboard. This enables customers to review and action their real-time data. The data can be easily downloaded in excel format or imported into your enterprise systems using ZiggyAPI. The data can be used as part of ESG compliance reporting for WELL, GRESB, BREEM and LEED. This data could also be invaluable in cases of litigation. All this is included as part of the standard service.

ZiggyAir Monitoring and Alerting Service

ZiggyTec operates on a unique Monitoring and Alerting service which delivers a very economical solution. There are no upfront fees, and no need to buy sensors. Instead, you pay a simple monthly fee per monitoring device*. There are no hidden fees and the monthly subscription fee covers:

- Use of the IAQ Device Monitor
- Calibration & Certification
- Installation & Commissioning
- Sensor Communications
- Battery Replacement
- Unlimited Live Alerts
- Unlimited use of ZiggyPortal
- Unlimited use of ZiggyAPI
- Unlimited storage of data

**Minimum order 10 devices*

Ziggy offers a range of devices. Each device measures three parameters:

Device 1:
Carbon Dioxide (CO2), Temperature and Humidity
or
Device 2:
Particulate Matter (PM), Temperature and Humidity
or
Device 3:
Volatile Organic Compounds (VOC), Temperature and Humidity

The next step would be to organise an online video call and we can discuss your requirements. We can demonstrate ZiggyAir in a live environment.

In the interim, if you would like to send us your floor plans, we will mark them up showing the placement of the sensors depending on your requirements and also provide a firm quote.

	Open Areas	Meeting Rooms	Total
CO2	5	13	18
PM	2		
VOC	2		

Ziggy air
Monitoring Indoor Air Quality

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Safety specialists since 1978

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