



HEALTHIER, SAFER INDOOR SPACES

WITH



THE CONNECTED SOLUTION



ABOUT AICO

Established in 1990, Aico has risen to become the European Market Leader in Home Life Safety over its 30+ year history, the cornerstone of which is delivering education, quality, service and innovation. Aico pioneer new technologies and offer high quality fire and carbon monoxide alarms, as well as environmental sensors, developed and manufactured in Ireland.

Stemming from this ethos, Aico strives to be at the forefront of innovation, constantly developing its systems to be first to market with groundbreaking life safety technologies and devices.

A key to Aico's innovation is the acquisition of HomeLINK, a leading provider of Internet of Things (IoT) solutions. This enabled an expansion into smart technologies and analytics, which complements its robust devices and services. Aico's Gateway and HomeLINK Environmental Sensors increase efficiencies and safety for all of its customers.

All Aico products are third party accredited to the relevant British or European Standards and are individually tested at multiple points throughout the manufacturing process, including initial assembly, test, calibration and a final test. This rigorous process ensures the highest quality product.



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**HAVE YOU
EXPERIENCED
DAMP OR MOULD
ISSUES IN YOUR
PROPERTIES?**

HOUSING

Aico is the European Market Leader in Home Life Safety, supplying Fire and Carbon Monoxide (CO) alarms across multiple sectors, including social housing, new build developers and temporary accommodation.

With tightening legislation for landlords regarding the health and safety of their housing stock, and growing public concern surrounding disrepair, Internet of Things (IoT) is one of the few remaining options available to them. Aico's IoT solutions help landlords to combat the challenges of poor ventilation, carbon dioxide, energy efficiency, fuel poverty, damp and mould.

IoT and smart home technologies are transforming how we view the indoor environment. Without the data these devices provide, we are effectively blind to the healthiness of our homes.

Aico's IoT platform enables landlords to gather data remotely from connected Fire Alarms, CO Alarms and Environmental Sensors, with all the information available via an online portal segmented by high, medium and low risk.

The notion of a connected home proves a real asset in making our homes not only more sustainable but also more efficient and ultimately safer - with a focus on wellbeing. IoT adds another dimension to home life safety and creates safer, healthier homes.

DO YOU KNOW IF YOUR SMOKE AND CO ALARMS ARE IN GOOD WORKING CONDITION?

THE BENEFITS OF IOT FOR THE HOUSING SECTOR



COMPLIANCE

Adhere to requirements outlined in Standards and Legislation, such as the Homes (Fitness for Human Habitation) Act 2018, PAS 2035, and the Energy Efficiency Standard for Social Housing.



NET ZERO

Pre- and post-retrofit monitoring enable landlords to target their worst performing properties first and ensure their investments provide more comfortable and efficient homes as intended.



COST SAVINGS

Data allows a detailed insight into the health and safety of homes, enabling preventative maintenance. By streamlining services Aico's HomeLINK platform offers a net return on investment.



DATA-LED DECISIONS

Make informed decisions and identify the properties that are most at risk to deploy resources more efficiently and effectively.



HEALTH & WELLBEING

Alerts and insights are delivered via the HomeLINK App, providing tenants with advice on the measures they can take to improve the quality of their home.



IMPROVED FIRE SAFETY

Benefit from complete transparency of the status of connected fire and CO alarms, with details on replacement dates, testing and potential faults.

DID YOU KNOW HIGH LEVELS OF CARBON DIOXIDE (CO2) CAN CAUSE DROWSINESS AND AFFECT CONCENTRATION?



OF CLASSROOMS
OVER 1,500PPM



OF CLASSROOMS
OVER 3,000PPM



OF CLASSROOMS
OVER 4,500PPM

*LESS THAN 800PPM IS CONSIDERED WELL VENTILATED

*DATA TAKEN FROM CLASSROOMS THAT ARE UTILISING HOMELINK ENVIRONMENTAL SENSORS

EDUCATION

With Covid-19 bringing indoor air quality (IAQ) to the forefront within schools, colleges and universities, other issues relating to inadequate ventilation have also been highlighted, such as negative effects on cognitive performance, poor concentration and even nausea. Studies have shown there is 50% cognitive decline* when CO2 levels reach 1,500ppm in the classroom.

Over **50** schools across the UK are utilising the HomeLINK Connected Solution to monitor CO2 levels in classrooms. This will help schools and local authorities to:

- Identify classrooms where mechanical ventilation could be required
- Monitor the performance of existing ventilation systems
- Improve air quality within classrooms, which has a proven* impact on cognitive function and learning

Monitoring temperature and humidity as well as CO2 within the same unit means schools can identify inefficient heating of rooms simultaneously.

HomeLINK Environmental Sensors have a 10-year battery life and are quick and simple to install. Once a Gateway has been installed in the vicinity, sensors can be in place and start gathering data within minutes with no mains power or wiring required.

THROUGH USING HOMELINK ENVIRONMENTAL SENSORS, IT IS POSSIBLE TO:

- > Inspect and improve ventilation and indoor air quality within classrooms
- > Ensure that there is acceptable indoor air quality for the number of students in each space
- > Increase the amount of fresh air in classrooms

Children spend the majority of their time at school indoors, so creating a healthy learning environment by improving IAQ ensures maximum health and productivity for students.

**Source: Impacts of Indoor Air Quality on Cognitive Function
Published by Harvard (School of Public Health)*



**ARE YOU
CONFIDENT OF
THE AIR QUALITY
WITHIN YOUR
OFFICE SPACE?**

INDOOR COMMERCIAL SPACES

OFFICE SPACES - FACILITIES MANAGEMENT - RETAIL

Monitoring the levels of carbon dioxide (CO₂) within your office space is hugely important when it comes to your employees' health and wellbeing.

The data collected by environmental sensors also assists with achieving net zero goals, ensuring efficient ventilation, and improving indoor air quality.

Powerful data insights will also enable a ventilation system to be run more efficiently to reduce costs and enhance energy efficiency.

Measuring CO₂ levels can also help plan for the future; is your workforce utilising meeting rooms, could money be saved by downsizing to a smaller office?

Does CO₂ data show that all the meeting spaces are very congested, reducing the advantages of face-to-face collaboration due to poor air quality? Maybe it's time to upsize your offices.

Ensuring good indoor air quality in retail and leisure facilities such as shopping centres, restaurants and cafes helps to create a healthy and safe environment for both customers and employees.

Now more than ever, it has become a greater priority to improve ventilation and air quality within these indoor environments.

Through the use of environmental sensors, monitoring temperature, humidity and carbon dioxide becomes a simple task.

Real-time updates enable quick identification of air quality trends and mean that a building's ventilation can be adapted accordingly.

With HomeLINK, you can identify business units or areas on the shopfloor that are warmer than others, enabling more accurate heating control, creating a more consistent environment throughout your facility, while reducing your carbon footprint and energy bills along the way.



In residential homes, reducing the heating system's setpoint by just 1°C has been found to save around £80 per year in energy*; imagine doing this on a commercial scale.

1°C ▼

** Source: How much energy could be saved by making small changes to everyday household behaviours?
Published by the Department of Energy & Climate Change*



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THE BENEFITS OF IOT FOR COMMERCIAL BUILDINGS



IMPROVE SUSTAINABILITY & ENERGY EFFICIENCY

Understand when it is necessary to improve ventilation to promote better indoor air quality. By utilising data, it is possible to run ventilation systems more efficiently.



FUTURE PROOF YOUR BUILDING

Data can help you understand how a space is being utilised and whether you need to upsize or downsize the commercial property.



PROMOTE EMPLOYEE HEALTH & WELLBEING

Improve indoor air quality by reducing CO2 levels when required to avoid a decrease in employee performance, relating to the negative effects of elevated CO2 levels, such as headaches and drowsiness.



GENERATE COST SAVINGS

Through the use of environmental sensors and data, heating and ventilation systems can be run more cost-effectively, as and when required, in-line with the recommendations.



IF CO2 LEVELS REACH 1,400 PPM COGNITIVE ABILITY CAN DECLINE BY 50%*



**Source: Research conducted by Environmental Health Perspectives*

The NHS consumed
11.7 billion kWh
of energy in 2020/21,
enough to power
785,000
average UK homes*.



**Statistics calculated from data published by The Estates Return Information Collection 2021-22 and ofgem.*

HEALTH

NHS design conditions state that different applications require specific temperature and air change conditions*. Environmental monitoring ensures compliance with these requirements, as well as accurately identifying rooms and buildings with inadequate levels of energy efficiency.

HomeLINK Environmental Sensors provide a simple and cost-effective solution to monitoring indoor environmental conditions, which can lead to disrepair – allowing issues to be targeted and repaired before it transitions into a priority maintenance matter.

Over-heated rooms or buildings can also be identified by collecting temperature data. Highlighting the affected rooms can drive direct cost reductions through targeted corrective action.

Room occupancy can also be measured by monitoring the carbon dioxide levels in real-time. Access to this information can assist estates teams to detect under-utilised rooms and manage the space more efficiently.

HomeLINK Environmental Sensors have a 10-year battery life and are quick and simple to install. Once a Gateway has been installed in the vicinity, sensors can be in place and start gathering data within minutes with no mains power or wiring required.

Sustained high levels of carbon dioxide can have a negative impact on patients with respiratory illnesses.

The HomeLINK Connected Solution can help to:

- > Identify wards, rooms and areas where mechanical ventilation could be required
- > Monitor the performance of existing ventilation systems
- > Improve air quality within clinical areas
- > Identify over-heated rooms
- > Pinpoint building issues that could lead to disrepair

**Source: NHS Health Technical Memorandum 03-01 Part A*



FIRE & RESCUE SERVICE

Aico is a supplier to the West Midlands Fire Service Framework, facilitating the procurement of its award-winning Fire and Carbon Monoxide (CO) alarms to the Fire and Rescue Service. In a move towards the standardisation of requirements as outlined in regulations, Aico can offer further support through the provision of:

- > A 60-minute FIA CPD-certified training module specifically for the Fire and Rescue Service, focusing on the recommendation of BS 5839-6:2019+A1:2020, Code of Practice for the design, installation, commissioning and maintenance of fire detection and fire alarm systems in domestic premises.
- > Complimentary use of Aico's mobile training and demonstration units and access to office space at Aico's Centre of Excellence in Shropshire for meetings and events.
- > Aico's team of Regional Specification Managers ensure consistent, active engagement with fire brigades across the UK, supporting initiatives such as resident engagement days to promote the importance of fire safety for communities across the UK.
- > Homeowner and tenant safety packs for residents.

CASE STUDY: GUERNSEY FIRE AND RESCUE SERVICE

Aico has partnered with Guernsey Fire and Rescue Service. This includes the sponsorship of two fire engines with printed graphics on the centre water ladder lockers, designed to encourage and highlight to residents the importance of testing their alarms. Scan the QR code to learn more.



Aico has provided unparalleled customer service and support, whether it be by the internal or external teams. They have worked to train all of our watches on the government standards and technical requirements, and have worked with us to educate local government on best practices. The island has never had support like this, everyone at Aico is always going the extra mile, and the training they provide is excellent.

Martin Lucas
Head of Fire Safety at Guernsey Fire and Rescue Service





CASE STUDY: THE WEE HOUSE COMPANY

Based in East Ayrshire, The Wee House Company specialise in the construction of private modular homes and modular developments. Each home is individually built in their factory, prior to being delivered and completed on-site.

The Wee House Company has been specifying Aico's 3000 Series of multi-sensor and single sensor fire alarms for their modular homes for the last 3 years, recently commissioning an order for their next modular development of 100 homes.

Due to the nature of modular construction, The Wee House Company required the ability to reduce the number of connections for electrical goods – a need that is fulfilled by Aico's 3000 Series.

The Ei3000MRF Module is inserted into each alarm head, providing wireless interconnection between alarms and avoiding unnecessary cable runs.

Scan the QR code to view the full case study.

BBC MORNING LIVE

The HomeLINK Connected Solution has been featured on an episode of BBC Morning Live, showcasing how Poplar HARCA are utilising IoT within their housing portfolio.

Scan the QR code to watch the episode.



We have sensors installed within our properties, which measure things like heat and humidity and from that, we can work out heat loss and lots of different things, enabling us to use our resources wisely.

Lizzie Williams
Assistant Director of Asset Management, Poplar HARCA



FULL CIRCLE PROTECTION WITH THE 3000 SERIES

The technologically advanced 3000 Series provides whole property coverage from one range, detecting both fire and carbon monoxide.



Scan the QR code to view all products.

MONITORING INDOOR ENVIRONMENTAL CONDITIONS

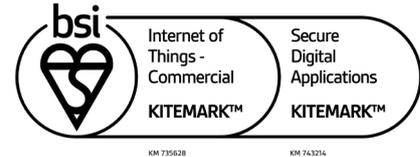
Aico's alarms and sensors connect with the Gateway; an innovative and award-winning system that provides insights into the health and safety of connected buildings. The Ei1000G uses wireless interconnection technology to link every alarm and sensor in a property to provide a full picture via the online HomeLINK Portal.



Ei1000G GATEWAY
THE HUB OF THE HOMELINK
CONNECTED SOLUTION



**Ei1020 & Ei1025
ENVIRONMENTAL
SENSORS**



- > Every product is third party accredited to the relevant British Standard to assure the quality
- > All of our products have a 10-year lifespan and a 5-year guarantee
- > Every product is individually tested at multiple points of the manufacturing process



Scan the QR code to find out more about the 1000 Series.

THE HOMELINK CONNECTED SOLUTION BY AICO

The HomeLINK Connected Solution includes a network of alarms and environmental sensors with the Ei1000G Gateway.

Data is extracted from connected devices and transferred via the Gateway through radio frequency.

Powerful machine learning algorithms interpret the data and provide an array of actionable information that can be used to stay compliant with legislation and improve indoor environmental conditions.

Our HomeLINK Environmental Sensors are available in two models:

- **Ei1020** - temperature and humidity
- **Ei1025** - temperature, humidity and carbon dioxide



ACTIONABLE DATA

- > Monitor carbon dioxide levels to improve ventilation and indoor air quality
- > Understand the energy efficiency and performance of a building by monitoring temperature in real-time in order to meet net zero goals
- > Target rooms and buildings that are at risk of developing damp & mould
- > Monitor fire and carbon monoxide alarms to improve compliance and asset management
- > Utilise the Structural vs Environmental insight to determine the root cause of damp and mould



EDUCATION, QUALITY, SERVICE & INNOVATION

EDUCATION

We believe it is our responsibility to not only create the right safety products but to also raise awareness of home life safety through our educational campaigns to communities, alongside promoting best practice through our installer programme.

We train thousands of customers from our supply chain each year through our Expert Installer programme and our City & Guilds Assured Qualification. We are also proud to work with schools, colleges and universities to create opportunities for the next generation to share our vision.



CENTRE OF EXCELLENCE

Our dedicated training and support facility opened in 2015 and welcomed over 1,200 people on bespoke training packages in its first year. To book a visit, please visit our website.

MOBILE TRAINING & DEMONSTRATION UNITS

We have four fully-equipped units, which travel the country for hands-on training sessions including free CPD Expert Installer training, and demonstrations of the latest technologies.

QUALITY

For the most reliable protection, each individual product not only meets every approval but is tested several times, primarily on initial assembly, at the test and calibration stage and a final thorough test.

Every alarm and environmental sensor is also third party accredited to the relevant British Standard, and both Aico and Ei operate to ISO 9001:2015, ISO 14001:2015 and OHSAS 18001:2007 standards.

SERVICE

We offer market-leading support to our customers, with a team of experienced Regional Specification Managers across the UK offering all the information needed to select the right products and technologies. They also work closely with distributors, while our in-house Technical Team is available to provide dedicated technical support. Finally, our Internal Sales Team provides excellent support over the phone to create a smooth ordering process for every customer.

INNOVATION

Aico's dedicated Research and Development Department continues to innovate with new products and applications, and together with Ei Electronics, holds over 20 patents on life-saving technologies.

Aico has been first to market with many ground-breaking innovations that improve protection and make maintenance easier, including wireless radio frequency interconnection, multi-sensor fire alarms and digital information extraction.

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an  Company