

## How Smart Sensors are helping Sustainable FM

John Voller, Head of FM Operations at Active Workplace Solutions discusses how smart sensor technologies are helping their clients achieve operational efficiencies across their estates and meet the ever-increasing demand for a corporate green agenda to meet net zero emissions.

Across the globe, all businesses have sustainability on their agendas and FM providers are reacting to this growing focus by bringing smart building experiences to the market. FM providers are increasingly taking advantage of innovative digital solutions to not only ensure the health and proper operation of their clients' critical building infrastructures but also cut down on man hours, non-essential travel and operate in a more lean and green way.

One way we achieve this is through the use of smart sensor technology that remotely and proactively identifies issues that could cause property and asset damage. These sensors can identify leaks, air quality, as well as abnormal temperature and humidity conditions. These sensors generate automated alert notifications in case of problems. Facility managers, tenants, and other stakeholders get notifications in case of anomalies and can act accordingly.

This technology also has a positive impact on employee experience through ensuring a healthy office environment thanks to the optimal configuration of temperature and HVAC parameters. Data on air quality, noise, light and temperature and particulates can also be fed into a complex algorithm in order to determine potential risks for airborne viruses, which has been quite useful in recent times!

Around the size of a mosaic tile, these sensors deliver their information 24/7 and have a battery life of 15 years. As an example of how they work, consider the compliance issue of regularly monitoring hot and cold-water temperature from office building taps. By fitting a sensor to the nearest and furthest taps from the water supply and the boiler, our engineers can remotely monitor whether the temperatures meet the necessary safety regulations. The sensors are triggered by a flow through the pipe they are attached with and can take a temperature measurement that is monitored on our system. Tap sensors can also identify little-used outlets and schedule the necessary flush needs. Another popular use is to monitor the use of light, power, and fuel, across company estates. By knowing what is used, where, and how often, it allows our clients to reduce their carbon emissions by optimising their utility systems according to occupation and frequency of use.

Dolby were one of our first clients to invest in these sensors. Dolby's EMEA Headquarters houses state-of-the-art audio equipment, testing rooms with hypersensitive acoustic flooring and meticulously organised cabling. The facility also houses a 60+ seater screening room to showcase their remarkable cutting-edge technology, as well as mixing and grading Hollywood movies. Air quality and temperature testing at the premises was a regular and essential requirement but at the same time, both complex, time consuming and involving engineers travelling through London traffic.

As part of our FM contract, we fitted just over 40, tiny sensor devices to their infrastructure and now conduct almost entirely remote checks and simply respond to any anomalies in person. This saves, time, money and carbon emissions – so it is a win for the client, a win for us and a win for the planet.

And yes, we do have them installed across our own office premises! We are taking our FM business firmly down a sustainable route with some transformative plans over the next two years. Being environmentally conscious has always been important to us from our days as an early adopter of the WEEE directive through to our charitable reuse/recycle policy in fit-outs and we see the use of these wonderful little sensors as just another way to make our footprints on the world, just a little lighter.

Active Workplace Solutions

Unit 4 Headley Park 10

Headley Road East

Woodley, Reading, Berkshire RG5 4SW

<https://www.activeworkplacesolutions.co.uk/>