



# AIREX

SMART VENTILATION CONTROL

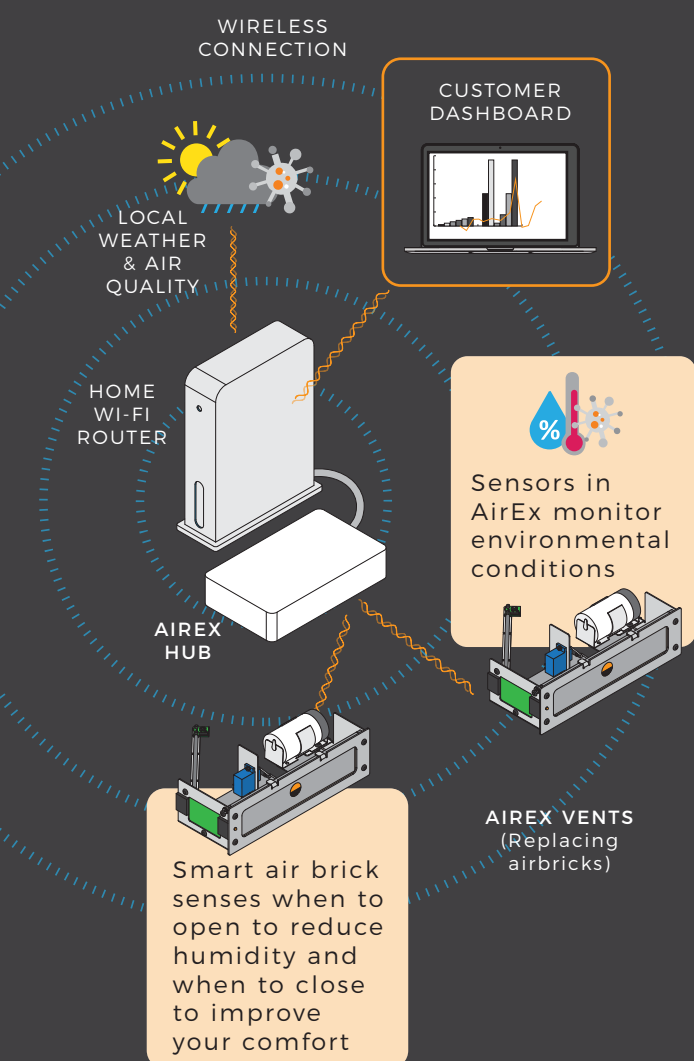




## WHAT IS AIREX?

AirEx is an intelligent air brick, which enables ~10-15% heating energy saving for residents without compromising moisture build-up or poor indoor air quality.

Furthermore, the real time data collected from its smart sensors – using predictive analytics - supports **Social Landlords** and **Maintenance Contractors** to undertake more cost-effective and targeted preventative maintenance, as opposed to high cost, unpredicted repair work.



## HOW DOES IT WORK?

AirEx consists of multiple vent units and a home hub. The vent units replace the home's existing air bricks to help reduce energy demand whilst controlling moisture in the building.

Its sensors monitor and analyse environmental conditions (e.g. temperature, humidity), while its cloud-based algorithms responsively regulate the airflow by adjusting the aperture of the vent. It uses AI to predict occupants' behaviour and weather pattern for more efficient air flow optimisation across the home.

The vents communicate via radio frequency with a internet connected AirEx hub, through which data can be viewed by the landlords or the maintenance teams.



## HOW IS IT INSTALLED?

Installation is quick, simple, hassle free. It only takes ~1-2 hours per property (~15 minutes per vent unit), without requiring access to the inside and no wiring or electrician work is needed.

In case of errors or power problems, the battery can be easily removed and replaced, enabling minimal disruption and cost-effective aftercare.



1  
Remove  
(air)bricks



2  
Mortar in  
channel



3  
Start & Install  
AirEx device



4  
Clip fascia  
into place

The AirEx home hub then simply needs to be connected to the internet router. Once online, AirEx does not require any occupant interaction to operate or to be beneficial.

## PROVEN TECHNOLOGY

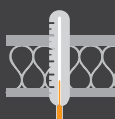
AirEx has been trialled on hundreds of homes in partnership with organisations such as Hackney Council, Portsmouth City Council, Walsall Housing Group, EDF Energy and ENGIE UK.

Robust, large scale, independently validated field trials proved the energy efficiency impact of AirEx:



**12-14%**

Whole house fabric heat  
loss reduction



**23%**

Ground floor U-value  
improvement



**9%**

Dwelling airtightness  
improvement



## | BENEFITS FOR INSTALLERS

- AirEx detects indicators of mould or damp, allowing Social Landlords and Maintenance Contractors to carry out on-going, preventative maintenance, rather than reactive repair work
- The installation of AirEx is quick, simple, hassle-free, which reduces installation time and hence labour cost for installers
- It can be combined with other energy efficiency upgrades, as a bundled package (e.g. cavity wall or loft insulation, smart controls)
- Upholding social distancing guidelines by enabling “contactless” or “self-installation” options and minimal internal works



## | BENEFITS FOR RESIDENTS

- Uses 10-15% less energy to warm up residents' rooms, meaning significant savings on energy bills
- AirEx cuts out cold draughts and since air velocity contributes to thermal comfort, lower temperatures feel more comfortable for residents
- Healthy home - ensures good air quality, mitigating condensation, timber rot and mould risk





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