

## Airflow Air Academy Demonstration Floor Project



## The Challenge

Airflow's 500m<sup>2</sup> Air Academy facility in High Wycombe required control and monitoring systems for the DALI lighting and underfloor heating with the smallest possible footprint so as to maximise space for the demonstration floor.

Airflow's priorities were:

- Maximising available space
- Resilience
- Flexibility
- Ethical practice
- Environmental accreditations

## The Solution

WAGO's modular I/O system was selected by system integrator Accurro. The scope of supply included numerous WAGO relays, WAGO-I/O-SYSTEM 750 modules and two programmable fieldbus controllers.

By using WAGO's highly compact hardware, Accurro was able to build a cabinet half the size of that originally anticipated. This in turn allowed the service room to be a third smaller than the initial design, freeing up vital space for Airflow's demonstration and training area.

There is little point choosing compact hardware only to have to compromise on functionality. This was never an issue, as the controller and I/O modules were sufficiently powerful to capably handle the controlling of the DALI lighting and underfloor heating. The modular system is so versatile that if more functionality was required either at the installation stage or in the future, more modules could be slotted in with plenty of space to spare.

Following discussions between Accurro, the system integrator and Airflow, the customer, it was decided early on in the project that only WAGO could provide the I/O density required, whilst also providing resilience, flexibility and engineering

**"With WAGO we can fit far more I/O into a panel – nothing else comes close for providing high functionality in a compact space."**

Harry Lees – Director – Accurro



The multi-faceted facility provides catering and meeting space for up to 60 people.

quality. Accurro was even able to link Airflow's own energy efficient mechanical ventilation and heat recovery system into the building controls.

WAGO's spring pressure connection concept enabled quicker installation compared to screw connectors, reducing on-site lead time while improving resilience.

Airflow can easily adjust any settings via a tablet or phone interface from anywhere in the building, allowing them to demonstrate to customers and clients the effectiveness of building controls in real-time, and optimise based on changes in usage.



WAGO-I/O-SYSTEM 750 modules were used to provide heating and lighting controls.

Scope of supply	Benefits	Results
2x programmable fieldbus controllers for underfloor heating and DALI lighting	High functionality with capacity to control all required processes as per specification, with ample scope for more	Effective and efficient control of lighting and heating
	Compact profile, controller variants measure just 50mm wide	Cabinet space halved; service room a third smaller, freeing up more space for Air Academy exhibits and demonstrations
	Powerful processor for fast, granular control	End user can continually optimise for further efficiency savings
	Flexibility; additional modules can be installed quickly and easily	Scalable nodes future-proofed against further expansions
WAGO-I/O-SYSTEM 750 modules	High I/O channel density	Slender modules allow more functionality to be packed into less space
	Provides real-time data on performance and efficiency savings	Energy savings displayed in real-time shows exactly how much money saved on utility bills
	CAGE CLAMP connection provides quick installation, reduced cabling, and superior reliability	Reduced maintenance requirements; spring pressure connections up to 50% quicker to install than screws
	Compatibility with other systems	System links seamlessly with Accurro's in-house software solution, and with Airflow's in-house heat recovery system

**“The controllers offer good efficiency, but where WAGO really stands out is on reliability.”**

Michael Tapp – Project Manager – Accurro

**“WAGO products were recommended early on in the project by Accurro as the best option to minimise the size of the control cabinet, which in turn allowed us to maximise the floor space.”**

Paul Carpenter – Operations Director – Airflow

#### **Airflow Air Academy**

With more than 60 years of designing and producing air movement solutions Airflow is known as much for its technical expertise in ventilation as it is for the innovation and excellence of its products. The Air Academy represents the best of Airflow's technology in a state of the art showroom while providing an outstanding facility for education and training.

Taking 18 months from concept to a grand opening on 9th January 2017 the multi-faceted facility provides catering and meeting space for up to 60 people, 179m<sup>2</sup> of product display and 'hands on' training from installing an extract fan to commissioning an Air Handling unit with Heat Recovery system.

Interest and awareness of the importance of improving air quality, particularly at home and in the workplace, while delivering reliable, independently certified energy efficient products has never been so high.

The environmentally controlled Air Academy enables Airflow to inform, teach and demonstrate to specifiers, contractors and resellers the benefits of quality ventilation solutions fully compliant with the latest environmental regulations.



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