

Press Release
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SE Controls Provides a Breath of Fresh Air for Jubilee House

Indoor air quality at a new £3 million energy efficient office development for the Diocese of Southwell & Nottingham, is being monitored and controlled by an advanced NVLogiQ natural ventilation system from international smoke and natural ventilation specialist, SE Controls.

The new 1290m² Jubilee House building was designed by Nottingham-based Maber Associates and provides the diocese with a mission centre, conference facilities and a new administration centre for approximately 50 staff who were previously located in the adjacent Grade II listed Dunham House.

The BREEAM Excellent rated building incorporates a number of energy saving features including high levels of insulation and natural daylight alongside low energy light fittings and SE Controls' efficient natural ventilation system, which monitors, manages and controls carbon dioxide (CO₂) levels and temperature to maintain a comfortable indoor environment.



The adaptive natural ventilation solution developed, installed and commissioned by SE Controls uses 26 of its innovative NVLogiQ controllers, which constantly monitor the air quality in 24 separate zones. This provides a highly versatile system that not only allows the indoor air quality and ventilation to be managed locally in each zone, but every NVLogiQ unit is also linked together as a networked building solution.

Depending on the level of CO₂ present in each zone, alongside information about temperature and humidity, each NVLogiQ controller signals a series of dedicated NVLogiQ PSU (power supply units) to automatically open windows and rooflight vents, allowing stale hot air to be replaced with cooler fresh air using the thermal stacking effect.

The sophisticated monitoring and control algorithms used in the NVLogiQ controller were developed in conjunction Loughborough University's Building Energy Research Group and are designed to not only provide highly accurate indoor air quality management and ventilation, but also minimise energy losses from the building.

Every compact NVLogiQ controller, which measures 160mm x 105mm, also incorporates a data logger, which allows the indoor air quality, building performance and ventilation strategy to be constantly recorded for analysis, enabling the operational parameters for each zone in Jubilee House to be tuned to meet specific environment needs.

In addition to the NVLogiQ controllers and PSUs, SE Controls also provided 50 SECO N 24 40 compact chain actuators to precisely control the opening and closing of the building's windows and rooflight vents, which are also linked to external temperature, wind and rain sensors.

In the event of rain, the system automatically closes all rooflights fully and reduces the window opening to 10%, yet authorised personnel can also adjust the individual ventilation strategy for each zone directly from the front panel of each NVLogiQ controller. A temporary over-ride facility is also available from the front panel, which allows a zone's system to be controlled manually.

SE Controls project leader on Jubilee House, Majeed Mohammed, explained: "NVLogiQ is an ideal solution for Jubilee House as it provides optimised indoor air quality, localised monitoring and control in 24 zones and constant real time data logging to enable the building performance to be monitored and tailored."

He added: "Ultimately, however, the natural ventilation system is about ensuring the building's occupants have a comfortable working environment while minimising the building's energy consumption. This solution not only meets these requirements, but also provides a level of adaptability and control that is often difficult to achieve using alternative methods."

SE Controls specialises in the design, project management and installation of advanced smoke ventilation and natural ventilation solutions to meet the needs of architects, contractors, building services engineers and facilities managers worldwide. Further information on SE Controls' products, solutions and projects can be obtained by visiting www.secontrols.com or calling 01543 443060.

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