



Siemens AQGARD™

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HVAC typically represents 30% of total energy use in commercial buildings. In labs, this increases to 60–70%. With other deep energy efficiency measures already implemented, HVAC is the next frontier of efficiency and productivity gains. That's why Siemens teamed up with Aircuity, an industry leader in indoor environmental quality (IEQ) sensing to develop the AQGARD platform.

AQGARD Demand Control Ventilation (DCV) platform is a fully integrated Siemens solution that measures multiple environmental parameters, optimizes ventilation rates and provides intelligent data to a wide variety of stakeholders. By using AQGARD's platform, customers can achieve high priority outcomes including reduced carbon emissions, healthier IEQ for enhanced employee productivity, occupant safety and even cognitive function. The data received from the platform is stored and analyzed in the cloud and is displayed in an integrated dashboard for the end user to better manage their air quality and energy usage.

AQGARD's unique platform uses a centralized sensor suite. The sensor suite includes high quality sensors that measure CO₂, TVOC, CO, ammonia, and particulate matter. These are indicators of poor air quality and when these factors are detected, AQGARD can increase the airflow to dilute and transport those contaminants away allowing the user to operate at lower airflow rates (during the time when the air is clean and clear). With a centralized suite, the end user eliminates the impact of sensor drift by comparing the readings in the sample air to the clean supplied air with the same sensor. Using one set of sensors in a central location helps offset the cost of purchasing several higher quality sensors for each sensed space and makes calibration easier without disrupting operations in the sensed spaces.

Comprehensive Service & Support



Reporting

Reporting is a feature of the AQGARD platform that helps the user analyze the captured data and develop actionable insights with analytical tools. These tools provide savings, protection and improvement opportunities.



Sensor Calibration

Every six months freshly NIST traceable calibrated sensors are installed ensuring the best possible system performance.



Hardware Assurance

AQGARD Hardware Assurance covers the replacement of all critical consumable components such as Sensors, Sensor Suites, Air Data Routers, Information Management Systems and Vacuum Pumps.



Consultation

Consultation services provide routine review of the system by experts on AQGARD and the built environment to identify issues and opportunities that impact customer outcomes.

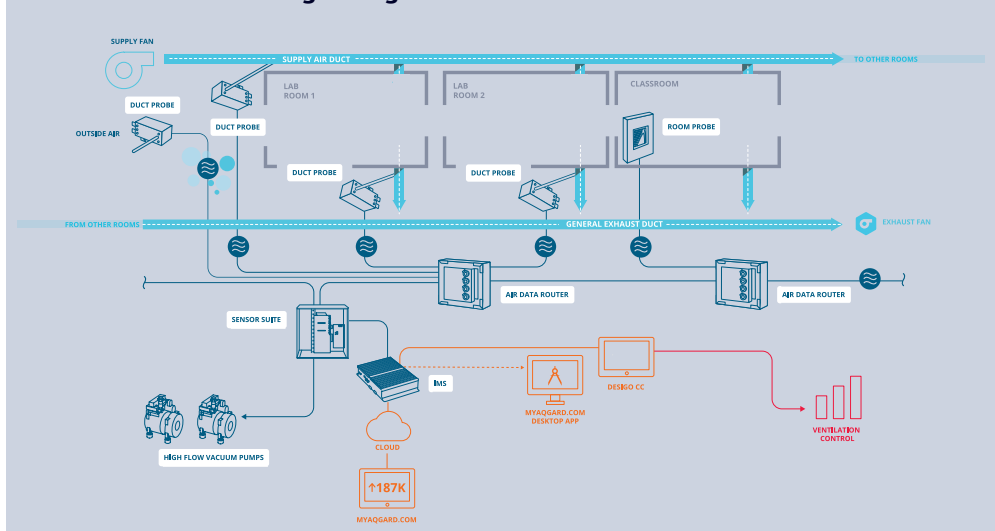
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The Unique Integration of Desigo – What Makes us Different

One of the great benefits of AQGARD is its integration into Desigo, an open building management platform for managing high-performing buildings. It is a scalable, open enterprise software platform for data integration giving the user more visibility. Desigo connects building systems via open protocols, APIs, web services, and custom integrations.

Since specific applications for DCV exist within Desigo, all the parameters that are monitored by AQGARD appear in graphics and can be used to dynamically control ventilation. The purpose of these graphics is to show greater transparency in operations, better analytics, and energy savings. This information captures data from the cloud for the lab workers – either remotely via a mobile device or directly from their system. This information can help enable occupants to become more engaged in improving air quality.

Architecture of the Desigo Integration.



Merging the Technologies Together for Safety and Efficiency

Siemens Desigo CC management software, DXR controllers for room HVAC and Lab control, AQGARD environmental monitoring and the GOLO® intelligent air valve, all help end users reduce energy and deliver better air quality in their office, support and lab spaces. Combining these technologies gives the greatest benefit with full transparency.

GOLO with DXR controllers respond to AQGARD measurements of current levels of exposure hazards delivering the widest control range of any airflow technology currently on the market. Through Desigo, the information is available 24/7, at workstations or smart phones, to get occupants involved in managing their own environments, to be safe, comfortable and energy efficient.

Service and Support from Siemens

Siemens offers service and support, helping end users learn how to use the technology and how they can get feedback on their energy and safety goals. This support for AQGARD is seamlessly delivered through service agreements, including remote troubleshooting and analytical services where service managers review with the owner the information in the myAQGARD dashboard on a regular basis. These teams work together to determine actions and set up projects that will reduce energy and improve air quality.

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