AIR LIQUIDE HEALTHCARE IBERIA

Case Study

Honeywell

BACKGROUND

Air Liquide Healthcare supplies medical gases and services to hospitals and laboratories. Some of these gases are explosive, while others can contribute to a low oxygen environment. Gas detection and monitoring systems, therefore, form a critical safety component of Air Liquide Healthcare's services to its customers.

Gas detectors monitor the atmosphere for the presence of dangerous materials, and each sensor is designed to detect a particular threat. Air Liquide primarily uses three types of sensors: oxygen (O2) detectors, Lower Explosive Limit (LEL) monitors, and excess carbon dioxide (CO2) monitors. The oxygen detectors confirm that the air is safe for breathing and alert people when there is a risk of asphyxiation. The LEL sensors warn against explosive conditions, and the excess carbon dioxide sensors guard high concentrations of CO2. All these conditions are life-threatening and require a well-managed and effective gas monitoring system.

As a company with global operations, Air Liquide attends to 1.6 million patients across 35 countries and supplies 15,000 hospitals and clinics. Due to ageing systems and the complexities associated with maintenance and reporting, the company decided to upgrade its gas detection solutions and turned to Honeywell.

CHALLENGES

The scale of operation and the different gas detection systems used across the company were a constant challenge for Air Liquide. The ageing solutions were labour-intensive, and required two maintenance technicians to perform any task: one to access the sensor and the other to man the controller to monitor readings. In addition, most of the compliance systems used were based on manual records, which left room for human error or missed calibrations.

To overcome these challenges, Air Liquide needed a solutions that could be retrofitted to the existing system, either with or without controllers. It had to simplify maintenance tasks, such as calibration, and be able to generate reports on-demand, based on real-time information.

SOLUTION

Honeywell's Sensepoint® XCL system provided the features that Air Liquide required. These wall-mounted devices pair up with a smartphone using a downloadable app, bringing connectivity to legacy devices. This technology helps simplify maintenance, enabling a single technician to carry out maintenance and perform calibrations while monitoring the sensor response on their smartphone. Reports can also be generated directly from the app, making managing compliance easy.

Sensepoint XCL monitors are designed to retrofit with existing systems. Each unit comes with the option of analogue, relay, or Modbus outputs, making it possible to link it with any controller on site. The Bluetooth-enabled devices can be accessed from any smartphone featuring the downloadable app. However, to optimise security, this pairing can only be accomplished with an activation key or by scanning the QR code supplied with the sensor.

The Sensepoint App facilitates a range of installation and maintenance tasks. These include a step-by-step calibration process, efficiently performed by a single technician. The wireless interface range extends to approximately 10 meters, making it easy to connect with sensors that are out of reach. Remote gassing connections mean that bump tests can be performed at regular intervals without the need to access the sensor directly.

The reporting and compliance management features of the Sensepoint XCL solution offer significant benefits for Air Liquide. As a starting point, the calibration status of a sensor is available at any time from the app. It also automatically generates warnings and provides information about the required maintenance actions. Reports can also be generated directly from the app and made instantly available to local and remote management teams.

RESULTS

The roll-out of Sensepoint XCL at Air Liquide Healthcare operations in Iberia has been a success. It has enabled the company to save man-hours, gain direct access to reports, and achieve long term cost savings.

One of the primary justifications for the Sensepoint XCL project was the simplification of maintenance tasks. Eliminating the need for two technicians to perform recurring tasks like calibrations has released personnel for other maintenance activities.

The reporting function of the Sensepoint App has helped Air Liquide improve compliance management. Access to real-time information gives the management teams greater control, enabling them to action calibration updates before the previous one expires, and to respond to sensor warnings quickly and efficiently. This increased visibility gives peace of mind that these critical systems are functioning correctly and always up to date.

Furthermore, the Sensepoint XCL implementation has enabled Air Liquide to achieve a greater level of consistency across their sites. This standardisation has simplified the training requirements for technicians and enable the company to cut costs, as spare parts can now be used across operations. Standardisation also reduces the chance of human error as all sensors operate in the same way and feature the same technology and procedures.

CONCLUSION

Air Liquide Healthcare has a vast network of clients, touching the lives of millions of patients each year. When it comes to toxic or explosive gases, safety is of paramount importance. This is why Air Liquide embarked on a program to upgrade their ageing gas detection systems in Iberia with Honeywell's Sensepoint XCL.

The retrofit project has met all expectations and laid the platform for a continued roll-out to other Air Liquide regions and operations. Air Liquide has found a reliable partner for safety and compliance in Honeywell and plans to continue to collaborate with it in the future.

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