CAS DATALOGGERS

Hospital Environmental Monitoring protects Operating Rooms & Cleanrooms

Accense System Continuously Monitors Hospital Environment

For comprehensive hospital environmental monitoring in surgeries and cleanrooms, Accsense Wireless Data Loggers monitor several parameters including Temperature, Humidity and Pressure. Accsense wireless environmental monitoring systems are the choice of many healthcare facilities with the Joint Commission's Gold Seal of Approval including Stanford Hospital and Clinics, Boston Children's Hospital, and the Cleveland Clinic Foundation, among many others.

Comprehensive Environmental Monitoring

Accsense A1-01a Environmental Pods record general environmental measurements in surgical chambers and other controlled areas. Accsense dataloggers can monitor several environmental values: ambient temperature, humidity, and differential pressure.

The data logger measures Temperature and Humidity using its internal sensor, while it monitors differential pressure using its External 4-20mA Current Input for connection with a differential pressure transducer.

An [Accsense B1-06 Wireless Data Logger Gateway](#) with built-in 10/100BaseT Ethernet enables connection between the pods' data and the Internet. The wireless gateway supported as many as 16 sensor pods, and features DHCP and static IP addressing. Diagnostic LEDs gave clear indications to personnel as to how to proceed. The wireless range of the system is up to 250' in free air and 90' indoors (with pods able to act as repeaters for other's signals), utilizing a 250-sample data buffer to compensate in the event of a power or internet outage.

Operating Room Monitoring

According to the Centers for Disease Control, millions of people annually acquire an infection as a result of their stay in a healthcare facility. In these sensitive areas, it's important to monitor temperature and humidity. For example, high humidity levels (70-90% RH) can cause it to 'rain', i.e. falling condensation from the ceiling and light fixtures, which is dangerous to patients on the operating table. This often indicates an HVAC system failure which must be addressed immediately.

Accsense connects to a commercial differential pressure sensor to continually monitor the differential pressure inside the surgery room and also help staff detect air leaks. In the event of an out of tolerance condition, Accsense will immediately send out alarms to multiple recipients so that staff can be notified in time to take corrective actions.

Each Accsense Wireless A1-01a datalogger is equipped with external 4-20mA and 0-5V inputs as well as internal ambient temperature, humidity, ambient light and vibration sensors. The data logger also features 2 digital inputs and can operate on either battery or AC power.

Cleanroom Monitoring

Continual monitoring of pressure is an effective form of leak detection. By mounting an Accsense pod with a differential pressure transducer across the room divider, you can monitor the pressure across the room boundary. This prevents microbes and other contaminants from exiting, especially for areas in which patients with an infectious disease are staying. Many cleanrooms also require monitoring of ambient temperature and humidity for patient safety and to avoid microbial growth.

Accsense will notify staff whenever the differential pressure drops or when the temperature and humidity go outside preset limits. The system will continue to log during power or internet outages and keep all data encrypted and secure on the Accsense servers.

Powerful Alarm Capability

Users can set up alarm triggers and receive alarms via email, text message or voice synthesized phone call to a voice line. Accsense can even send the same alarm to multiple recipients! Additionally, free software and free on-call technical support are included with all Accsense products.

The system will even continue to log during Power or Internet outages and automatically backfill all the data on the secure Accsense servers once power and/or connection is restored.

Online Account

With Accsense, all your data is sent to the Web right away. Users can download measurement data for analysis, log in to access real-time reports and graphs, and administrators can modify the system configuration online from any Internet-enabled location. An Accsense monitoring plan gives users access to charts showing all measurement history, cloud-based data storage and reporting, and an intuitive interface

with a dashboard showing recent measurements from all pods.

The gateway can send all the data to the secure cloud server at Rackspace or as a local ASCII stream, which personnel could then incorporate into their own custom software including LabView. Data online could easily be downloaded as a CSV file and loaded into most database applications. Hospital staff downloaded measurement data for offline analysis, signed in to access reports and graphs, and administrators could modify the system configuration from anywhere an internet connection was available.

The Accsense Advantage

CAS Dataloggers has provided Accsense systems to Healthcare clients throughout the United States since 2009.

Pete Martin, CAS Dataloggers Sales Manager states, "With Accsense, you're compliant with all Joint Commission recommendations. Not only can Accsense handle multi-parameter monitoring, but our installations are the simplest on the market. Accsense automates environmental monitoring and alarming to help keep your organization compliant and to give you an instant heads-up when your room's conditions go out of spec. Meanwhile all your data is stored online where you can view it in real-time—that's the Accsense advantage."

For more information on our Accsense Wireless Monitoring Systems, or to find the ideal solution for your application-specific needs, contact a CAS Data Logger Applications Specialist at **(800) 956-4437** or visit our website at www.DataLoggerInc. com.