

COMPREHENSIVE HOSPITAL MONITORING TO PROTECT PATIENTS

ACCSENSE SYSTEMS TRACKS & ALARMS TEMPERATURE, HUMIDITY & PRESSURE



For comprehensive hospital monitoring in surgical suites and cleanrooms, the Accsense Online Monitoring system will monitor the required physical parameters. This application was to monitor, record, and alarm the temperature, humidity and pressure in surgical suites and cleanrooms in a hospital. Accsense Online Monitoring systems are the choice of many healthcare facilities including Stanford Hospital, Boston Children's Hospital and the [Cleveland Clinic Foundation](#), among many others.

COMPREHENSIVE MONITORING

This application uses [Accsense A1-01a Environmental Data Logger](#) pods to record general environmental measurements in surgical suites and cleanrooms. The Accsense Online Monitoring system can capture almost any physical parameter with the addition of 3rd party sensors built to industry standards when paired with any one of the data logger pods.

An [Accsense B1-06 Wireless Data Logger Gateway](#) communicates with up to 15 data logger pods via a 2.4GHz wireless signal. The B1-06 is connected to the network via an Ethernet port to send the aggregated data from the data logger pods and uploads it to the Accsense cloud. Both the pods and gateway have a range of 250' unobstructed or 90' indoors (pods are able to act as repeaters if needed). The pods utilize a 250-sample data buffer to compensate in the event of a power or internet outage.

SURGERY SUITE 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 sensitive areas where patient health can be easily compromised, it is important to monitor temperature and humidity because high humidity levels (70-90% RH) can cause falling condensation from the ceiling and light fixtures. This is particularly dangerous to patients on the operating table as dust and other contaminants can then fall into the patient's body cavity. This often indicates an HVAC system failure which must be corrected quickly.

In this application, the Accsense A1-01a connects to a differential pressure sensor to continually monitor the differential pressure inside the surgery room and also help staff identify air leaks. In the event of an alarm event, 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 data logger is equipped with 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 hospital monitoring of pressure is an effective form of leak detection. By mounting an Accsense measurement pod connected to a delta pressure transducer across the room wall, facility personnel can monitor the positive pressure of the cleanroom space. This prevents microbes and other contaminants from crossing the

sterile barrier, especially for areas with infectious disease concerns. Monitoring of ambient temperature and humidity also helps 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 keeps all data secure on the Accsense servers.

POWERFUL ALARM CAPABILITY

Users setup alarm thresholds and receive alarms via email, synthesized voice call or SMS text messages sent to multiple recipients. There is no need to install software on your PC because all configuration settings including alarm thresholds are set from the web interface increasing the convenience Accsense provides by allowing data retrieval from anywhere with a web enabled device.

The system will even continue to log during Power or Internet outages and the offsite server will generate a loss of communication alarm triggered by simple network failure or a more catastrophic power outage. This provides Accsense users with added peace of mind knowing that even if communications fail they will still be alerted to potential loss.

ONLINE ACCOUNT

The brains of the Accsense Online Monitoring System is our back end servers where users sign in using a browser to access their data, make configuration changes and acknowledge alarms while noting the corrective action taken. This architecture allows users to do all of this without installing any software onto their computer freeing up local computing resources and making most IT specialists happy.

THE ACCSENSE ADVANTAGE

With Accsense you're 100% compliant with all [Joint Commission](#) recommendations. Accsense has the advantage of being able to record almost any physical parameter and installation is one of the simplest on the market. The Accsense Online Monitoring System provides alarming to help keep your organization compliant and eliminate the expense of lost inventory. All your data is stored online where you can view it in real time or download and print graphs from anywhere in the world with a web-enabled device.

For more information on [Accsense Online Monitoring systems](#), hospital monitoring or to find the ideal solution for your application-specific needs, contact a CAS DataLogger Application Specialist at **(800) 956-4437** or www.DataLoggerInc.com.