APPLICATION NOTE

CAS DATALOGGERS

Environmental Monitoring Equipment In Production Plant

Accsense VersaLog Records Both Temperature and Humidity

CAS DataLoggers delivered the data logging solution for a production plant whose production machinery was mysteriously slowing down and causing production delays. As part of the trouble shooting process, the plant engineer wanted to gather environmental data on his critical electrical equipment. This application required a portable data logger with the versatility to measure temperature and humidity which was capable of standalone operation without a PC, and which included software with graphing capabilities for data analysis. Accsense provided the environmental monitoring equipment for use in this particular manufacturing plant.

Installation

The company installed an Accsense VersaLog Humidity and Temperature Data Logger adjacent to their machinery under test. An onsite technician setup the data logger to measure machine conditions by taking both a temperature and humidity reading once every 10 minutes. If desired, the user can set the sampling rate anywhere between every 20 milliseconds to every 12 hours. Using its external Sensirion RH digital sensor, the VersaLog monitors temperature on one channel and relative humidity on the other, storing up to 4MB of readings on its non-volatile flash memory.

Usage

The logger's 5-year lithium battery enables standalone operation, while its aluminum enclosure and conformal coating helps protect it from industrial accidents. The datalogger utilizes multiple communications options including USB and Ethernet Connections; in this case the user just collects the data by pulling the flash drive. With the included SiteView software's intuitive graphic interface, the technician quickly setup and configured the datalogger. This way all the data can be viewed in real time and the technician can organize it in charts and graphs.

Using SiteView, the technician can also view all alarm triggers, zoom in on specific data, annotate and label graph functions, and view dynamic statistics. With SiteView, users can set high and low alarm limits for the alarm outputs and if necessary trigger external devices such as an alarm light or horn. For fast downloading, SiteView supports communication speeds up to 115200 bps to quickly access all data. Once downloaded, the data can be plotted and analyzed on an office PC.

Benefits

As a result of installing a data logger as his environmental monitoring equipment, the plant's engineer will be able to identify if his machinery is being adversely affected by excessive temperature and humidity or if the cause lies elsewhere. The second planned step is to use a voltage input Versalog for machine health monitoring; checking operational voltages against nominal values. Accsense Versalog's portability enables standalone, simple operation at a cost well within the operating budget.

The datalogger also eliminates the need for workers to take time-consuming manual measurements that would be much less accurate and prone to error than sensor-gathered data. This frees up technicians for more demanding work. In the near future, if it's found that the plant's temperature and humidity are to blame, this alone will pay for the datalogger by preventing another process delay or halt.

For further information on the Accsense VersaLog Humidity and Temperature Data Logger, environmental monitoring equipment, or to find the ideal solution for your application-specific needs, contact a CAS Data Logger Application Specialist at **(800) 956-4437** or www.DataLoggerInc.com.