

# EnviroMon

## DATA LOGGING SYSTEM

### Case Study: Semelab



#### The customer

Semelab, based in Lutterworth, Leicestershire, are manufacturers and distributors of high-reliability semiconductor components. They perform the assembly, test and screening to international standards entirely in house. The company was established in 1974 and markets products worldwide in four divisions: Power Management, Aerospace, RF (radio frequency) and Opto.

#### The challenge

According to relevant MIL/NASA/IECQ standards, all Semelab's approved semiconductors must be manufactured in a controlled environment. Previously, like many other clean rooms, Semelab had been using the whirling hygrometer test to take manual readings of the environment at regular intervals. This simple method could not detect or log humidity and temperature drifts, which need to be monitored closely. The challenge was to provide a system that would do all of this without the need for constant supervision. ESD (electrostatic discharge), which occurs in drier atmospheres, can damage the components and therefore maximum and minimum amounts of humidity (30% minimum and 65% maximum) have to be maintained when testing.

## The solution

Pico Technology's EnviroMon system provided Semelab with a simple, cost-effective solution. EnviroMon monitors the control of the clean room by measuring temperature and humidity across the whole building and logging the information live onto a PC.



The data can be viewed across Semelab's own intranet, and even posted live on an internet web page for customer audit if required. Alarms are set for low and high temperature and humidity with audible and software notification.

The main benefits that the EnviroMon system gave to Semelab were that data could be imported into dynamic web pages; live and historical information was easily accessible; and the software and hardware alarms indicated changes in the manufacturing and test environments.

## The outcome

Before the installation of EnviroMon, there was a system of taking manual readings at regular intervals, with further management time required for collating and analysing the information. EnviroMon has eliminated this effort by providing on-the-spot readings. Up-to-date information is readily available and all historical information can easily be retrieved. The detailed nature of the information has been a great help to Semelab in the implementation of their Environmental Management System, which leads to ISO 14001 certification.

