A New Type of Temperature Data Logger!

Rick Kaestner

A temperature data logger has always meant a small boxy device used to keep track of temperature readings. They have become very prevalent since the 1980's and are used to monitor storage locations such as warehouses or refrigerators. Temperature data loggers are also used to keep track of goods as they are shipped from place to place. A wholesaler can put one into a semi trailer to keep track of the storage temperature of fruits or vegetables as they are being shipped across country. The information these devices provide is becoming more and more critical as more and more government and industry regulations require that foods, medicines, and even hard goods be maintained a constant temperatures.

The temperature data logger does have two drawbacks however. They have to be programmed before use and there is no way to determine what the temperature has been during the logging process until the data logger is downloaded to a computer.

A new type of data logger, the data viewer, is now available which overcomes these limitations. A data viewer is a data logger with a LCD display. An LCD shows the current temperature and a chart of the logged temperatures.

The data viewer has the following features:

- 1. Meet accreditation and customer requirements: **FDA**, **ISO** 17025, **JCAHO**
- 2. **24/7 Alarming** provides an early warning for out-of-spec temperature conditions triggering an auto dialer or local alarm.
- 3. **Protected data storage** (you never lose data!): Each <u>data logger</u> stores a complete copy of the records in its battery backed up non-volatile memory
- 4. **Immunity to power outages**: Each <u>data viewer</u> has a 40 hour backup battery and of course the non-volatile memory which protects the stored data even if the battery fails.
- 5. **Easy Installation**: The data viewer is easy enough for a 12 year old to install and use. It immediately begins to collect data when power is

supplied. You can set the date and time and the display parameters in just a few seconds with the help of the Care and Use guide.

The most accurate and least expensive way to document temperature is with a data viewer like the Master Thermometer. The Master Thermometer's sensors can be set to sample temperature from once every minute to once a day. It has enough RAM memory to store over 80,000 readings from each sensor. So it will store and display



over 1.5 years of temperature history if it is sampling temperature once every ten minutes.

The Master Thermometer is being used extensively to monitor refrigerators and freezer where vaccines and medicine are stored. It has an internal alarm which sounds a high pitched alarm and flashes the screen when an alarm is triggered. It also has a relay so that external alarms, sirens, or lights can be triggered upon alarm. Many Master Thermometer users are installing an auto dialer so that a phone call is triggered if the temperature gets too warm or cold for too long.

For more information you can contact Rick Kaestner at <u>rickk@e2di.com</u> or 502 243-0042.