

Emerging Technology PROFILE

Omega Engineering

CTXL Superecorder Takes Circular Chart Recording to the Next Level

Chart recorders are a familiar sight in manufacturing plants, where they track such variables as temperature, pressure, flow, pH, and humidity. Laboratories, meanwhile, use them to monitor scientific and engineering data generated in testing, diagnostics, statistical analysis, and other work requiring a graphic record.

Omega Engineering has long been a force in chart recording, and with the introduction of its impressive CTXL Superecorder—a universal, portable circular chart recorder that follows two measurements simultaneously—the Stamford, Conn.-based company leaves no doubt that it intends to remain a leader in the field.

Meeting Demand While Adding Value

In recent years, PC-based functions have been added to many chart recorders. Some models have hybridized with data loggers, while others have dispensed with paper altogether. Yet even with the rise of the paperless recorder, traditional analog recorders remain popular. Omega has been quick to recognize this, not merely by meeting the demand, but also by developing the CTXL, a chart recorder that takes the tried-and-true formula one step further with microprocessor-based electronics, data logging capability, PC communication, built-in relays and relay drive outputs, improved ergonomics, new user-interface keypad features, long battery life, and a sleek case available in white or charcoal.

When the process to be tracked involves limited variables that do not require a PC-based interface, paper and pen can still be the way to go. The advantage of a circular chart is its intuitiveness: at a glance, it gives a complete history of each selected variable over a specified period—a truly continuous display of a trend's change with time. The clocklike analog output is easy to handle, read, and interpret. Omega's new CTXL comes in dual-thermocouple input, dual-process input, and temperature and relative humidity models, all of which can be configured for a 1-, 7-, or 32-day schedule.

Three Models, Countless Uses

The dual-thermocouple input model uses a type J, K, or T thermocouple input to measure and record the temperature of virtually any industrial or laboratory process. By monitoring temperature over time, a user can determine whether process improvements are indicated. The charted graphs, for example, could provide insight into the correlation between temperature and engine wear.

The dual-process input model records any standard process voltage/current signal, providing a representative measure of flow, pressure, AC voltage/current, and other processes. One application for this model would be to monitor the AC current of a piece of equipment vs. the temperature build-up in a component of the same equipment. The charted graphs would show how the two parameters correlate, perhaps indicating that the component's temperature rise will lead to premature failure.

Monitoring air quality in a factory, laboratory, hospital, office, museum, or other environment is a typical application of the CTXL temperature and relative humidity model. A dual-backlit display shows temperature and humidity in real time; the same data is stored in the recorder's non-volatile memory. Stored data can be downloaded to a PC through an RS-232 serial port.

A Sure Thing for the Engineering Toolbox

"There are probably hundreds of ways in which the three models can help those who need to monitor and record two processes over time," said Shahin Baghai, Omega's manager of product development. "The charted graphs give a tremendous amount of information on each process and how the two correlate, often providing insight into how to make improvements."

Contact: Omega Engineering, Inc.
One Omega Drive
Stamford, CT 06907
800-826-6342
Fax: 203-359-7700
Email: info@omega.com
Website <http://www.omega.com>

