

HOW TO COLLECT AND ANALYZE ENERGY DATA COMPLIANT TO EN50001

USING A DATA LOGGER TO RECORD CURRENT AND VOLTAGE MEASUREMENTS



The EN50001 standard requires high energy-consuming industries to implement energy-saving measures and, when required, to install energy management systems. Determining energy consumption, therefore, requires users to collect energy data, which can be performed using Delphin Message series data loggers. Thanks to their LAN interfaces, these devices can be located throughout a facility and installed directly at the plant and machinery under monitoring. The energy measurement system can then transmit consumption data to a central data server or workstation PC for analysis.

ENERGY OPTIMIZATION USING ISO 50001

Released in 2011, [ISO 50001](#):2011 'Energy management systems – Requirements with guidance for use' is a specification designed for the creation of an energy management system. This standard outlines the requirements for establishing, implementing, maintaining and improving these systems. With these guidelines, users can continually improve their energy performance by taking into account energy efficiency, energy use, and identifying energy reduction opportunities.

ISO 50001 relies on accurate data collection as being the key to an effective energy audit. Organizations are free to choose their own energy targets and to form an achievable action plan to reach them.

WHY USE A DATA LOGGER FOR AN ENERGY AUDIT?

Delphin data loggers feature universal inputs which can directly measure analog units of useful data, such as pressures and flows. Users can also acquire data from electric, gas and water meters using the systems' pulse inputs and/or serial interfaces. Characteristic values for consumption data are processed and monitored directly within the devices.



All the collected energy data can be documented, analyzed, and portrayed using the included ProfiSignal software. The software is very user-friendly and combines professional functionality with easy operation. Users can simultaneously monitor any number of processes, whether in a plant, lab or testing area.

DELPHIN FEATURES FOR ENERGY APPLICATIONS

- [Delphin Message](#) devices function as a decentralized, intelligent point of collection for all energy data.
- Problem-free connection with energy meters to measure energy, quantities, gas, water and electricity, as well as attachment to measurement converters.
- Serial interfaces using ModBus RTU and ASCII protocols, and PROFIBUS DP.
- High sampling rates enable simultaneous fault analysis and process data acquisition.

INDUSTRIAL MEASUREMENTS DATA ACQUISITION

Delphin data loggers solve a variety of measurement and control problems in industrial and laboratory applications. They feature different analog and digital I/O modules that can be used with a wide range of signal types including voltage; 4-20 mA current; thermocouple; RTD; and resistance. They also offer powerful alarm and programming capabilities which allow them to process measurements and initiate actions independent of a PC.

Delphin systems can be used for local data acquisition and logging when connected to a PC; for remote unattended data collection connected the internet; or as stand-alone devices.

BENEFITS

ISO EN50001 offers businesses and organizations an actionable way to reduce energy costs, but first you need to look at hard data. Delphin Message dataloggers are useful for monitoring energy data from machinery and equipment, sending it via LAN interface to a server or PC, and analyzing it via the software. This gives users a relatively simple setup for effective energy auditing and efficiency.

For more information on our full line of [Energy Measurement Systems](#), how to collect energy data 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.