

DATA LOGGER PROVIDES MACHINE MONITORING SOLUTIONS FOR CRANE COMPONENTS

DELPHIN PROFIMESSAGE CONTINUOUSLY MONITORS FOR FAULTS



Crane operators often only learn of machine damage when a motor or drive suddenly fails—a costly way to deal with a problem! To ensure early fault diagnosis, finding machine monitoring solutions were crucial. A universal [Delphin](#) data logger can continually monitor the crane components and produce alerts in the event of impending machine failures. Meanwhile users can view the data from a remote office PC in the form of trend diagrams with a single Delphin system.

For this application some examples of desired functionality are synchronous data acquisition of high-speed analog and digital signals associated with various sensors used to capture the physical values of the crane components. For example, load cell monitoring can be performed accurately with a load cell sensor on the crane hoist connected to one of the logger's analog inputs. This data will be used to continuously monitor the machine components and identify faults when the parameters go outside of a normal operating specification. The device must be stand-alone and not need a PC to perform the required tasks and finally it will need to be able to transmit the data and alarms with a network connection or through cellular networks if required.

CONTINUAL MACHINE MONITORING

Cranes are complex systems made up of many different components that need to be continuously available, have low operating costs, and high productivity. A crane also represents a large capital investment with high repair costs and loss productivity if something goes awry so the use of a continual a monitoring system is considered a worthwhile investment to avoid undue added costs. The [Delphin ProfiMessage](#) devices ensure continuous monitoring for machine wear and tear as well as detailed analysis in the event of a fault.

A data logger provides operators with instant indication of issues rather than having to stop operation in response to an expensive component failure. Thanks to continuous monitoring, other operational problems decrease and allow faster response times in the event of a fault. For example, crane operators can be out to lunch and still receive an alarm showing that a motor is failing. Users are notified of

an alarm event, so they only have to review the data when it matters or the data gathered will be analyzed to determine when preventative maintenance is needed.



The data logger can be installed in a control cabinet on the crane and supports a wide range of analog sensor types including load pins, load cells, pressure transducers, overload safety plates, torque sensors and more.

REMOTE MONITORING CAPABILITY

The ProfiMessage device has an internal memory that can be partitioned enabling separate storage of fault data both before and after an alarm event. The large capacity of the memory will also provide long term data storage so trend analysis can be performed at a later date. The crane data can be accessed via cellular network, LAN or a USB stick and is evaluated using the powerful [Delphin ProfiSignal software](#).

COST-EFFECTIVE MEASUREMENT DEVICE

In summary, machine monitoring solutions like the Delphin ProfiMessage intelligent universal data logger has many versatile features that enable continual machine monitoring, alarming through fault lights and emails, communication with PCs for remote monitoring, and trend displays using the software.

For further information on [Delphin Message Data Loggers](#), machine monitoring solutions 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.