



PRESS RELEASE

A simple module for data logging and analysis High-speed Data Logger Brings Transparency to Industrial Automation Processes

See Mitsubishi Electric at SPS/IPC/Drives: Hall 7, Booth 380

Ratingen, 24 November 2009. Continuing its drive to expand its portfolio of integrated MES technologies for factory and building services automation, Mitsubishi Electric has now introduced a versatile new data logger module for use with its modular controllers. The module can record data with a time resolution down to a single millisecond and can be installed and ready for operation in minutes. Its intelligent functions enable efficient monitoring, documentation and analysis of automated processes. The data logger is particularly well suited for applications that need fast access to current data, but for which complex database systems would be unwieldy and uneconomical. The company is launching the powerful new data logging and analysis module at the SPS/IPC/Drives 2009 trade show in Nuremberg.

Developed specifically for Mitsubishi Electric's modular programmable logic controllers (PLCs), the new QD81DL96 data logger module is a simple and economical solution that enables users to read, store and analyse controller data at high speed. In contrast to conventional data logging solutions, the data is accessed directly via the controller's own common backplane bus instead of via computers and a network. Once installed on the backplane together with Q-Series PLC CPU of the user's choice, the module records the sequences of signals, states and events exactly as they occur, in real time, cycle for cycle. Extremely short logging intervals of down to a single millisecond (depends on CPU type)

enable very precise and complete records and documentation of machine and system operations. The technology can also be used in energy management systems for up-to-date recording of current consumption data and the factors that influence consumption.

Full integration of the data logger in modular automation platforms gives operators access to powerful tools for analysis and diagnostics. For example, you can confirm machine performance, monitor system parameters and document production output figures, down time and failures. Up-to-date logging and display of reliable data enables production planners to respond quickly to current production needs. The detailed information also makes it possible to identify weak points in processes, quickly identify and correct the causes of failures, reduce the amount of preventive maintenance needed and identify and implement other improvements to increase productivity.

Continuous, interval or event-controlled logging

The data logger records the data relevant for production, process and quality control, adds a timestamp and stores it on a standard commercial CompactFlash card with a capacity of up to eight gigabytes. Multiple modules and other data sources in larger, distributed systems can be synchronised via a network with the Simple Network Time Protocol (SNTP).

Recording can be configured to be performed continuously, at defined intervals or event-controlled using threshold values or defined events as the triggers. Trigger criteria can include things like unauthorised access to the machine or system, critical states like overheating, processes that take too long or component failures. The data logger has an integrated Ethernet port that it can use to send warning messages by email to a computer or a mobile phone so that service staff can respond quickly when problems occur.

The trigger function is also very useful for error diagnostics and process optimisation. When an error or other defined occurs the logger automatically stores the data for a defined time window between points before and after the trigger event, and the data is then immediately available for analysis. The data is also stored continuously in a circular buffer and only written to the memory card when the trigger signal is received.

Easy visualisation and operation

Data can be stored in three different formats: As a Microsoft Excel spreadsheet, as a plain text file using comma-separated values (CSV) and as a binary file. The binary format is the most compact, can be saved fastest and also provides the best protection against unauthorised access to the data. Users who use Excel as their analysis program can view and analyse all the data directly with their familiar tool without losing the benefits of system integration. Styles for forms, tables and graphics can be applied to the module directly and Excel reports generated with them can be sent automatically by email. It is possible to configure continuous automatic transfer of all files to an FTP (File Transfer Protocol) server and a continuous link to a personal computer.

A powerful visualisation tool with an oscilloscope function supports historical trending and real-time analysis of the logged data. The results can be quickly displayed in colour tables and graphs with simple Drag & Drop functions. If there are problems with a machine or system that local staff are unable to resolve they can send a memory card with the logged data to the manufacturer for diagnosis.

Configuration of the data logger is simple and straightforward, using an on-screen dialog with detailed step-by-step instructions. Only four steps need to be completed to start reading and storing controller data. The settings can be written to a memory card for quick

transfer to other modules. Data logging begins automatically as soon as the memory card is inserted in the module.

One module for 64 controllers

A single data logger module can read the data from up to 64 controllers via standardised fieldbus systems like CC-Link IE (Control and Communication Link Industrial Ethernet), CC-Link or an Ethernet network connection. No protocol converter or other additional equipment is needed. This keeps the costs low and the added transparency ensures that users will recoup the investment for the device very quickly.

Caption:

Mitsubishi Electric's versatile high-speed data logger brings more transparency to automation processes with efficient recording and analysis functions.

Press Office:

Mitsubishi Electric Europe B.V.

Factory Automation European Business Group
John Browett
Gothaer Str. 8
40880 Ratingen, Germany
www.mitsubishi-automation.de
Tel: +49 (0)2102 486-1200
Fax: +49 (0)2102 486-3548
john.browett@meg.mee.com

Redaktionsbüro Mediakonzept

Büro Ratingen
Dr. Norbert Poßberg
Krummenweger Str. 7
40885 Ratingen, Germany
Tel: +49 (0)2102 399-817
Fax: +49 (0)2102 399-818
possberg@aol.com