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Yokogawa Meters & Instruments to Release Three New Modules for DL850E/DL850EV
ScopeCorders
–Including the industry’s first SENT-compliant module–

Yokogawa Meters & Instruments Corporation announces that it will release three new plug-in input modules for the DL850E/DL850EV ScopeCorders on October 15. These are a 4-channel isolated module (sampling rate: 1 MS/s^{*1}, resolution: 16 bits), a high-speed isolated module (sampling rate: 100 MS/s, resolution: 12 bits), and a SENT monitoring module. With its support of the SENT communications protocol, the SENT module is a first for the general-purpose measuring instrument industry.

Development Background

With the growing awareness of the need to save energy and protect the global environment, there is a push to make electric and electronic devices, home appliances, and vehicles more energy efficient. To reduce energy consumption, it is particularly important to produce more efficient inverters and motors, which requires the measurement and evaluation of many different items during the development phase. In addition, as the use of renewable energy and smart grids is growing rapidly, there is an increasing need in the electric power and energy markets for the ability to record many different signals at high speeds. And in the automobile industry, where high resolution digital sensors that rely on the SENT protocol to communicate with ECUs^{*2} are increasingly in use, there is now the need for a solution capable of monitoring such communications.

To satisfy these needs, Yokogawa has developed these three modules for its DL850E/DL850EV ScopeCorders. This brings the total of available input modules to 19 and greatly expands the usage of applications that can be handled by the DL850E/DL850EV ScopeCorders.

Features of the New Modules

1. Model No. 720254: 4-channel isolated module (sampling rate: 1 MS/s, resolution: 16 bits)

With this model, the number of input channels has been doubled. As up to eight of these modules can be mounted on a DL850E or DL850EV ScopeCorder, this gives it the capability to isolate and record signals for up to 32 channels at high speed and high resolution. In addition, this module can accept voltages of up to 600 V, making it ideal for applications such as the long-term monitoring and analysis of the behavior of power supply signals with large generators and multi-output power supplies, and dynamic behavior analysis through multi-point measurement in vehicle ECUs and power transmission systems. The ability to simultaneously record at multiple points is also effective in troubleshooting.

2. Model No. 720211: High-speed isolated module (sampling rate: 100 MS/s, resolution: 12 bits)

In addition to having a 12-bit resolution and an isolation capacity of up to 1 kV, this 2-channel module features a sampling rate of 100 MS/s, making it one of the fastest data loggers on the market.

With the ability to mount up to eight of these modules on a single DL850E or DL850EV ScopeCorder, this gives it the ability to monitor and record up to 16 channels at a high speed of 100 MS/s. With the development and evaluation of motors, inverters, and other types of power devices that operate at ever higher voltages and have advanced control features, this module is ideal for recording inverter signal waveforms at multiple points.

3. Model No. 720243: SENT-monitoring module (only for DL850EV)

An industry first, this module enables a general-purpose measuring instrument to monitor the transmission of data using the SENT protocol. This module can be used in the development and production of automobiles that employ SENT output sensors and in applications whereby changes in physical quantities are cross-checked with SENT output values to determine their level of consistency.

Major Applications

- Recording, calculation, and analysis of sensor signals for measuring voltage, current, and physical quantities during the design and development processes
- For experimental purposes, the recording of data over long periods of time and the evaluation of such data

*1 Mega samples per second. This indicates the rate at which a waveform is sampled.

*2 Electronic control unit: An embedded system that controls the various electrical systems and subsystems in a motor vehicle

About ScopeCorder DL850E/DL850EV

The major feature of the ScopeCorder DL850E/DL850EV is its ability to observe physical signal outputs over extended periods of time, and it is particularly useful in mechatronics related development activities, where a great emphasis is placed on noise-proof performance. The ScopeCorder is both an oscilloscope that can capture rapid events and a data recorder that can record trends with high resolution and over extended periods of time.

About Yokogawa

Yokogawa's global network of 88 companies spans 56 countries. Founded in 1915, the US\$3.5 billion company engages in cutting-edge research and innovation. Yokogawa is active in the industrial automation and control (IA), test and measurement, and aviation and other businesses segments. The IA segment plays a vital role in a wide range of industries including oil, chemicals, natural gas, power, iron and steel, pulp and paper, pharmaceuticals, and food. For more information about Yokogawa, please visit www.yokogawa.com.

