Three New Modules for DL850E/DL850EV

The DL850E/DL850EV ScopeCorders are modular-type signal waveform recorders that can synchronously measure various signals such as voltage, current, strain, and acceleration. The ScopeCorders measure for a long period multiple physical signals of equipment that requires excellent noise resistance and that is used to develop mechatronics products. Two models are available: the DL850E standard model and the DL850EV vehicle edition with functions for enhancing the development of devices for automobiles.

With the addition of three new modules, a total of 19 plug-in modules can be used for various measurement applications.

MAJOR FEATURES

- **High-speed 100 MS/s 12-bit isolation module**
  - This is a successor of the module 720210. With a new design, the DL850E/DL850EV can accommodate up to eight modules (all slots occupied).
  - Using high-speed optical fiber transmission, this module achieves high-speed ADC clock and data isolation, and enables precise measurement of high-speed switching waveforms of power supplies and inverters under severe noise environments.
- **SENT monitor module**
  - This module interprets the SENT protocol for in-vehicle communication networks to monitor communication data, and displays its time series trend waveform.
  - Each port can monitor the trend of up to 11 data.
  - Combined with other input modules, the DL850EV can measure not only temporal changes in SENT communication data and analog data but also logic signals of the electronic control unit (ECU) simultaneously, display the data as trend waveforms, and save them to files.
- **4CH 1 MS/s 16-bit isolation module**
  - This module enables the isolation measurement of up to four channels.
  - Eight modules can be mounted on one DL850E/DL850EV for high-speed, high-resolution, isolation measurement of up to 32 channels.
  - The module has four isolated BNC input terminals for up to 600 V (DC + AC peak) input (when connecting with 700929 (10:1), 702902 (10:1), or 701947 (100:1) probes).

MAJOR SPECIFICATIONS

- **High-speed 100 MS/s 12-bit isolation module**
  - Number of input channels : 2
  - Maximum sampling rate : 100 MS/s
  - A/D conversion resolution : 12 bit (150 LSB/div)
  - Frequency range (–3 dB) : Up to 20 MHz (DC)
  - Maximum input voltage (at a frequency of 1 kHz or lower) : 1000 V (DC + AC peak)
  - Common mode rejection ratio : 80 dB (50/60 Hz) or more (typical)
- **SENT monitor module**
  - Number of input ports : 2
  - Maximum data updating rate : 100 kS/s (10 µs)
  - Supported protocol : SAE J2716
  - Number of analysis subchannels : 11 (FAST CH, SLOW CH, S&C, Error, Error Count)
- **4CH 1 MS/s 16-bit isolation module**
  - Number of input channels : 4
  - Maximum sampling rate : 1 MS/s
  - A/D conversion resolution : 16 bit (2400 LSB/div)
  - Frequency range (–3 dB) : Up to 300 kHz (DC)
  - Maximum input voltage (at a frequency of 1 kHz or lower) : 600 V (DC + AC peak)
  - Common mode rejection ratio : 80 dB (50/60 Hz) or more (typical)

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* ScopeCorder is a registered trademark of Yokogawa Electric Corporation.

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1 The SENT monitor module is for the DL850EV only. This module does not work with the DL850E.