CAN Newsletter Online

SIGNAL CONDITIONING PLATFORM

Sensor data streaming via CAN

The two signal conditioning platforms by Kistler are modular systems for the conditioning of a range of different measuring signals. This includes signals from piezoelectric and piezoresistive pressure sensors.

The current generation of signal conditioning platforms SCP and SCP Slim offers user-friendly functionality, new software, and enhanced interfaces. For the integration, both models feature an Ethernet interface – for Type 2853B it is located either on the front or rear, depending on the version. Manual operation of the measurement functions (measure/reset and drift compensation) is possible with the interface card Type 5615B, which is integrated into every Kistler rack.

Existing SCPs Type 2853A can also be retrofitted to Type 2853B with a conversion kit due to their modular design. Thanks to a CAN interface, the devices support monitoring functions on the test bench. Examples are the peak cylinder pressure of piezoelectric sensors or the temperature of piezoresistive sensors. The CAN interface is used for data streaming of the cylinder peak pressure and temperature with a bit-rate between 100 kbit/s and 1 Mbit/s.

The SCP software included in the scope of delivery offers many functions. All amplifier settings and sensor specifications can be displayed in a table. An edit and export function enables the use of the data to document the settings. The Piezo Smart technology from Kistler offers the foundation for up-to-date resource management and cost-efficient operations, says the company. The possibilities of the Piezo Smart sensors are further expanded with the charge amplifier Type 5064C.

The Type 5064C enables operating times and cycles to be automatically recorded. Another feature is the ability to classify cyclic loading of the pressure sensor in six pressure zones. The features allow an individual evaluation of the specific load profile for each sensor and therefore present an important parameter for test equipment monitoring. The sensor specific data are stored in the Piezo Smart sensor permanently connected plug coupling and can be accessed directly on the charge amplifier without having to connect to external PCs or databases.

The product offers digital signal output for temperature via CAN (Photo: Kistler)

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