

Pocket-size data recorder

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A very compact device from Siemens is simplifying common sound and vibration measurements in industry. Until now, acceleration sensors and microphones have been attached to box-shaped devices connected to a computer. By contrast, the new LMS SCADAS XS data recorder fits in your hand and can be directly operated through a keypad or a tablet computer. The recorder is the first portable, multi-channel-enabled device for recording high-quality sound and vibration measurement data. The device enables people to take measurements in car interiors very easily, for example, or while walking through large facilities or working in tight spaces.

Sound and vibration are important measures for product developers in almost all sectors. Some household appliances are categorized according to their [sound](#) levels, and sound and vibrations affect comfort in cars and planes and are also important considerations in construction machinery and tools for home use. At large systems such as industrial printing machines, [measurements](#) of sound and vibration provide information about their mechanical state. An initial impression is provided by simple microphone measurements. More detailed insights for product improvements, for example, are gained from special sound measurements and the data supplied by various sensors. The data is registered by multi-channel recorders (sometimes referred to as "data loggers"), which are connected to a laptop.

The new recorder is a compact version of Siemens' LMS SCADAS technology for recording sound and vibration measurement data. These devices supply very clean data (i.e. source data that has been purged of

random noises and glitches), which can be directly fed into the evaluation programs without any further processing.

The LMS SCADAS XS is about the size of a thin paperback book (2 cm x 11 cm x 17 cm) and can record the measurement data supplied by up to 12 sensors. A USB port allows the [device](#) to be connected to a computer. In addition to featuring the usual analogue sockets for sensors and microphones, the device is also enabled for binaural recordings made with special headphones or dummy heads. To make binaural sound recordings, microphones are used in headphones in such a way that they create a natural acoustic impression, which allows directions to be precisely localized. Such recordings are made to measure noises in [car interiors](#), for example.

The new Siemens [data recorder](#) also comes with a tablet computer and an app for operating the device and evaluating the data while the measurements are being made. Thanks to this [tablet computer](#), the data recorder can also be preconfigured for field tests at an industrial facility, for example, before it is shipped along with the tablet. When it is preconfigured in this way, the LMS SCADAS XS can also be operated by non-specialist users.

Provided by Siemens

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