USB-Powered Scopes Have Integrated IEPE Sensor Drive

Saelig Company Inc. has introduced PS4224-IEPE, a 20 MHz 12-bit 2-channel PC oscilloscope adapter with an integrated IEPE (Integrated Electronic Piezo Electric—IEEE 1451.4) interface, making it compatible with any industrial standard IEPE accelerometer or microphone, at an affordable price. Intended for use with industry-standard accelerometers for monitoring vibrations and acoustic waveforms in the field, PS4224-IEPE makes an excellent choice for mechanical analysis without expensive add-on modules. In addition, there are several other sensor types that use this interface, such as microphones, impulse hammers, acoustic, force, and pressure sensors etc.

Designed for customers who require measurements from high-sensitivity accelerometers, PS4224-IEPE's 12-bit resolution can capture even the smallest incremental changes. The IEPE sensors are powered via the integrated constant current sources on the BNC input connector, but PS4224-IEPE can also be used as a standard PC-hosted 2-channel digital storage oscilloscope for other non-IEPE applications without modification. With a fast 80 MSa/s real-time sampling rate and input ranges from ±50 mV to ±100 V full-scale, PS4224-IEPE can handle small signals from sensors as well as higher voltages from power supply circuits and motor drives. The deep 32 MSa memory can, for instance, capture over 400 msec of data at the maximum sampling rate without any performance reduction. Powered solely from a standard USB 2.0 port, no power adapter or batteries are required, making PS4224-IEPE ideal for field work with a laptop PC. An optional single-axis IEPE accelerometer with a measuring range of ±490 m/s2 (±50 g) is also available (TA095).

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