

Press release

Lower noise threshold for all measuring ranges and reduced lead time for accelerometer 8763B

Piezoelectric accelerometer from Kistler measures micro-vibrations even more accurately

Winterthur, July 2022

The most successful triaxial accelerometer 8763B from Kistler has been improved even further. Its noise thresholds are now significantly lower for all ranges: Thanks to improved testing procedures, thresholds are up to 58 percent lower which allows for more accurate measurements in micro-vibration monitoring. Process improvements additionally led to shorter manufacturing times and increased stock levels – resulting in reduced lead times.

Measuring micro-vibrations is necessary in many engineering applications: accurate GPS data depends on stable space crafts and satellites, while automobile developers need NVH testing (noise, vibration and harshness) to optimize driving comfort, vehicle performance, durability and reliability. Because micro-vibrations occur in the micro-g range, a highly sensitive measuring chain with very low noise is required for such applications.

Reduced noise thresholds for measurements of micro-vibrations

The IEPE (Integrated Electronics Piezoelectric) triaxial accelerometer 8763B is the most common Kistler sensor used for these measurements and permits vibration monitoring in three mutually perpendicular axes. The measuring threshold determines the smallest possible level of vibrations that can be reliably picked up by the sensor. In 2021, Kistler already improved the noise threshold for the 50-g range. More efficient testing procedures and large investments into Kistler's facilities have now led to further improvements. The 8763B now features a significantly lower noise threshold for all its ranges: a 58-percent lower noise threshold for its 100-g range, 37 percent for the 250-g range, 52 percent for the 500-g range, 54 percent for the 1000-g range and 51 percent for the sensor's highest range of 2000 g. With these improvements sensor 8763B becomes even more suitable for common applications, like modal analysis, frequency response measurement and e-motor testing.

Improved availability of triaxial accelerometer

The improved procedures and operations at Kistler have also resulted in shorter lead times and reduced delivery times for the 8763B series on low- to mid-sized orders. With this new process, throughput time has been reduced significantly under optimal conditions. This in turn, also allows for

increased safety stock levels to be maintained. At the same time, the availability of subcomponents has improved as well.

The 8763B sensors provide a wide frequency response in each orthogonal axis, making it well-suited for dynamic vibration measurements, especially on lightweight structures. Other features include the sensors' lightweight hermetic titanium housing and high immunity to base strain thanks to shear element technology. An integral silicone cable variant is available for underwater vibration testing at up to 10 bars. Sensors of the 8763B family can be installed on test objects by either adhesive mounting or flexible studs thanks to three 5-40 threaded holes, making it possible to fully utilize each mounting side of the cube design, ensuring reliable mounting for the calibration of each axis.

Image material (please name the Kistler group as picture source)

The IEPE triaxial accelerometer 8763B now features a significantly lower noise threshold for all its measuring ranges.



Measuring micro-vibrations with the triaxial accelerometer 8763B becomes even more accurate thanks to improved noise thresholds.



Investments into production and testing facilities in Buffalo, New York led to significant improvements of Kistler's most successful triaxial accelerometer.

Media contact

Martin Marinak
Marketing Manager for BU Test & Measurement and E-Business
Tel.: +41 52 2241 974
Email: martin.marinak@kistler.com

About the Kistler Group

Kistler is the global market leader for dynamic pressure, force, torque and acceleration measurement technology. Cutting-edge technologies provide the basis for Kistler's modular solutions. Customers in industry and scientific research benefit from Kistler's experience as a development partner, enabling them to optimize their products and processes so as to secure sustainable competitive edge. Unique sensor technology from this owner-managed Swiss corporation helps to shape future innovations not only in automotive development and industrial automation but also in many newly emerging sectors. Drawing on our extensive application expertise, and always with an absolute commitment to quality, Kistler plays a key part in the ongoing development of the latest megatrends. The focus is on issues such as electrified drive technology, autonomous driving, emission reduction and Industry 4.0. Some 2,000 employees at more than 60 facilities across the globe are dedicated to the development of new solutions, and they offer application-specific services at the local level. Ever since it was founded in 1959, the Kistler Group has grown hand-in-hand with its customers and in 2021, it posted sales of mCHF 411. About 7% of this figure is reinvested in research and technology – with the aim of delivering better results for every customer.