

Press release

Reliable long-term monitoring of gas turbines up to 700°C

Winterthur, June 19, 2018 – Kistler introduces the world's first high temperature accelerometer for the monitoring of gas turbines. Designed for long-term use at up to 700° C, the piezoelectric sensor – made in Switzerland – is not pyroelectric and does not show any popcorn effect. This stands in contrast to ceramic measuring elements, offering manufacturers and operators of gas turbines new options for monitoring the combustion stability. The new measuring element will be unveiled in Vienna at this year's Electrify Europe.

The efficient and secure operation of gas turbines relies upon stable combustion processes. These have to comply with increasingly strict regulations, including flexible operation on different fuels and minimal emissions. At the same time, there is an associated risk of unstable combustion processes and pressure pulsations. Reliable and continuous monitoring systems are required to monitor and control these combustion processes.

Reliable, long-term monitoring thanks to long lifespan

The new high temperature accelerometer from Kistler is the first sensor of its kind. It is designed for permanent operation with a lifespan of three to five years at temperatures up to 700° C.

Thanks to the patented PiezoStar crystal technology from Kistler, the new sensor is neither pyroelectric nor does it produce any popcorn effects. As a result, the sensor is highly reliable and generates high-quality signals for the interference-free monitoring of combustion dynamics.

“To begin with, our new high temperature accelerometer will be applied in research and development departments at scientific institutions. Additionally, we are also in direct contact with gas turbine manufacturers,” said Flavio Rosa, development engineer at Kistler.

A certified comprehensive program for thermoacoustic applications

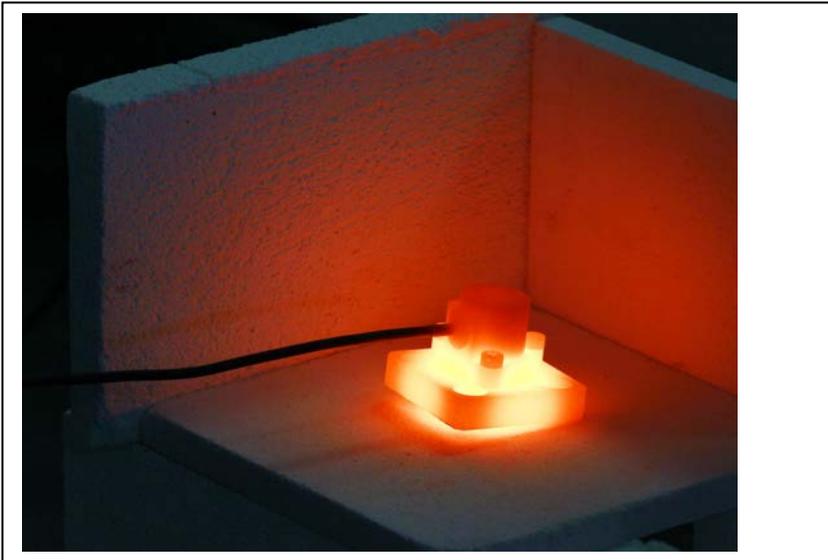
The Swiss-made sensor completes the modular thermoacoustic portfolio from Kistler, including pressure sensors and accelerometers for long-term monitoring of gas turbines and combustion dynamics in high temperature surroundings.

High temperature sensors from Kistler are certified in accordance with the European ATEX guidelines for explosion prevention (Ex-nA and Ex-ia).

Kistler at Electrify Europe: Hall A, Stand A-B11



For the monitoring of gas turbines: the new acceleration and pressure sensors, plus fitting charge amplifiers from Kistler



Short-term application at 750°C – thanks to the proprietary PiezoStar crystal technology, the high-temperature acceleration sensor Type 8209A resists under most extreme conditions

About the Kistler Group

Kistler is the global leader in dynamic measurement technology for measuring pressure, force, torque and acceleration. Cutting-edge technologies provide the basis for Kistler's modular solutions.

Customers in industry and science benefit from Kistler's experience as a development partner, enabling them to optimize their products and processes so as to secure a sustainable competitive edge. The owner-managed Swiss company's unique sensor technology plays a key role in the evolution of automobile development and industrial automation, as well as in numerous emerging sectors. With a broad knowledge of applications and its absolute commitment to quality, Kistler is making an important contribution to the further development of current megatrends. This includes topics such as electrified drive technology, autonomous driving, emission reduction and Industry 4.0.

Some 1 900 employees at 61 locations worldwide are dedicated to developing new solutions and offer custom-ized service for individual applications. Since its founding in 1959, the Kistler Group has grown along with its customers, generating sales of CHF 422 million in 2017. Approximately 8% of this went back into research and technology — and thus into achieving better results for all our customers.

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