

## Media release

### **Kistler presents new LabAmp 5167A with Fischer-connector and DynoWare for force measurements in metal cutting applications**

#### **Advanced features for amplifier family maximize flexibility for cutting force users**

Winterthur, 12 April 2017 – Kistler enlarges its portfolio of laboratory charge amplifiers with the new LabAmp 5167A, which allows for quasi-static charge measurements and adds new features to the LabAmp family. A special version with Fischer-connector is available that is waterproof and compatible with all new stationary force dynamometers for metal cutting applications. Providing users with more flexibility, the amplifiers are able to quickly and easily acquire digitized data from actual measuring signals without complicated additional equipment. The product portfolio is completed by a new Version of the DynoWare software for easy to handle data acquisition and analysis.

In order to receive usable measurement results, the underlying sensor signals must be conditioned and processed accurately and low-noised. Here, Kistler offers an attractive portfolio of solutions for signal conditioning and subsequent data digitization. Piezoelectric sensors with a charge output (PE sensors) operate reliably with charge amplifiers.

#### **New quasi-static charge amplifier and data acquisition solution**

In 2017, Kistler launches the LabAmp 5167A for generic test and measurement force applications in a laboratory environment. The signal conditioning device is the market's only quasi-static charge amplifier and data acquisition solution with such impressive versatility. Its powerful digital signal processing allows for perfectly tailored filters and easy force summation. The integrated data acquisition provides flexibility and simplifies the measuring chain. The product is available as a four or eight channel charge amplifier with Fischer or BNC input and BNC output connectors. It offers measuring ranges from 100 ... 1'000'000 pC and has a frequency response of  $\approx 0$  Hz ... >45 kHz. "Here, we go from a simple charge amplifier towards a customer-oriented solution. In addition to valuable technical improvements such as charge ranges, noise and filters, the integrated data acquisition and full digital signal processing not only greatly simplifies the measuring chain, but also allows direct integration into a customer's software environment", explains Martin Stierli, product manager for test and measurement signal conditioning at Kistler. Gunnar Keitzel, product manager for cutting force applications at Kistler emphasizes: "With the aggregation of charge amplifier and data acquisition in one device we fulfil the requirement of rough machining environment by reducing the number of cables and offer much easier usability". To be integrated into semi- or fully automated measurement systems, the LabAmp 5167A has two separate digital inputs for remote reset/measure and trigger. Hereby the amplifier/data acquisition functionality can be controlled by an external digital signal. With the low-noise charge front end, smaller signals can also be measured, ensuring more accurate measurement results.

## The LabAmp family as complete measurement solution

With the new LabAmp family feature “Precision Time Protocol (PTP) synchronization”, Kistler has implemented a new, attractive way to connect multiple devices and synchronize data from multiple devices in a network. For the synchronization, there is no need for complicated additional equipment, only the existing Ethernet cables are needed. Also, 5167A devices can be combined with the LabAmp 5165A which allow for the pairing of quasi-static force measurements from the 5167A with acceleration signals of a piezoelectric sensor with integrated electronics (IEPE) or voltage acquisition on a LabAmp 5165A. By this, Kistler provides a complete measurement solution for a wide range of measurements in metal cutting operations.

## Software solutions for the LabAmp family

The LabAmp family comes with a simple and efficient user interface to get started. By using a standard web browser, no additional software installations have to be made and the device is readily available for simple and precise measurements. The advanced solution is to use the Dynoware software that was updated to be compatible with the LabAmp family. The Dynoware is an easy to use software for device configuration, data acquisition including predefined mathematic operations to calculate the resulting forces and torque from multi-component dynamometers and functionalities for data analysis and visualization. This makes the synchronized data acquisition allowing several devices to be configured simultaneously and to capture data from several devices trigger-based in a single file as easy as winking.

The LabAmp 5167A can also be integrated into LabVIEW™ based programs.

## Visit us at the Aachener Werkzeugmaschinen Kolloquium

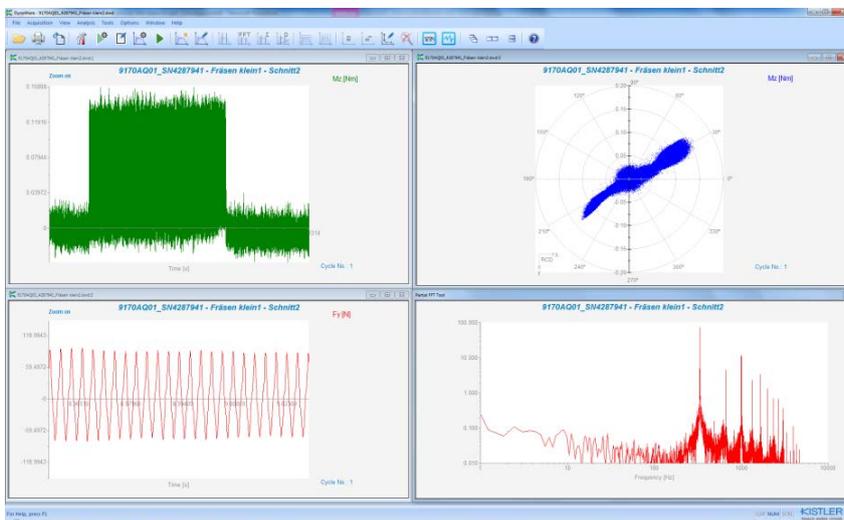
Kistler will launch the new LabAmp 5167A for the first time in the field of cutting force at the Aachener Werkzeugmaschinen Kolloquium in Aachen, Germany from May 18 to May 19, 2017. Visit our Kistler experts at our exhibition stand in front of the presentation rooms and find out more about our innovative amplifier portfolio. Further information is also available online via [www.kistler.com/labamp](http://www.kistler.com/labamp)



**Caption 1:** The LabAmp 5167A with Fischer-connector is the perfect choice for multi-component force measurements with piezoelectric dynamometers.



**Caption 2:** The LabAmp 5165A offers great flexibility for dynamic measurements



**Caption 3:** The DynoWare 2825A is an easy to handle software for multi component measurements and analysis

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## About the Kistler Group

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

Customers in industry, research, and development benefit from Kistler's experience as a development partner, enabling them to optimize their products and processes so as to secure sustainable competitive edge. Kistler plays a key role in the evolution of automobile production and industrial automation. Drawing on its vast application expertise – and always with an absolute commitment to quality – Kistler drives innovations ahead in areas such as lightweight construction, vehicle safety, emission reduction, and Industry 4.0.

The Kistler Group is an independent, owner-managed Swiss corporation. Some 1 500 employees at 56 facilities worldwide are dedicated to the development of new measurement solutions, backed by individual application-specific support at the local level. Ever since Kistler was founded in 1959, the company has grown hand-in-hand with its customers. In 2015, it posted revenue of USD 341 million, about 10% of which is reinvested in innovation and research – with the aim of delivering better results for every customer.

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