KISTLER

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Media release

SPS 2017:

Kistler showcases digital innovations, expands services

Winterthur, 12 October 2017 – At the SPS IPC Drives from 28 to 30 November 2017 in Nuremberg, Germany, the Kistler Group will unveil a new calibration system for torques of up to 100 kNm. Kistler's stand will also feature more milestones in electrical automation: the high-performance torque sensors in the KiTorq series (with real-time capability) and the world's first digital charge amplifier.

Sensors and systems from Kistler help customers get the most from their machinery and plant. For example, they help with inspection and calibration of drives and tools; they are used to monitor and optimize individual production steps and to analyze and automate entire production processes. Now that the era of digitization has dawned, one of the major challenges facing engineers is to continue developing products such as piezoelectric sensors towards the goal of Industry 4.0, ensuring maximum connectivity for automated environments. With one overriding aim: to generate real added value for customers.

Motion control in real time with KiTorq

Kistler has yet again enhanced the potential of its high-performance sensors in the KiTorq series. A transmission rate of 4 kHz now makes the evaluation unit (stator) of this modular series four times as fast when the Profinet or EtherCat interface is used for the connection. For Profinet, this allows the use of IRT mode, enabling real-time communication for isynchronous motion control applications – for instance, this makes torque control possible on the test bench.

The new stator can be combined as desired with the various rotors in the KiTorq system such as KiTorq 4550A (presented at the SPS 2016), delivering measurements of torque, speed or rotation angle with exceptionally high resolution of up to 8192 pulses per rotation.

Calibration for big challenges: high-end testing system available as a service

The new calibration system at the Kistler Group's Lorch facility now offers an exceptional service for customers in the drive technology sector. This system has a usable measurement range of 1 to 100 kNm and is one of the very few plants in this performance class to hold accreditation from DAkkS, the German accreditation body. Thanks to the new system, designers of heavy-duty machinery, ship engines and wind power turbines as well as manufacturers of special-purpose machinery now have the option of intensive testing and optimization for their solutions. This new plant (which ensures traceability) marks another significant expansion of the Kistler Group's range of calibration services.

First in the world: the new digital charge amplifier

Kistler has achieved a breakthrough in industrial sensor technology with its new Type 5074A data acquisition unit. The Type 5074A is currently the only amplifier on the market for piezoelectric sensors with communication consistently based on Industrial Ethernet (IE). For the first time, plant and machinery manufacturers can now integrate any desired piezoelectric sensors directly into a real time-capable Ethernet system, so they can easily make settings on the measurement amplifier via the control.

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Stefan Affeltranger, Product Manager in Kistler's Production Monitoring section, is full of enthusiasm about this new product: 'The 5074A is the world's only amplifier for quasi-static measurement processes with piezoelectric sensors that offers communication based on real time-capable Industrial Ethernet.' It is also extremely secure, he adds: 'Access to the unit is only possible with the appropriate industrial communication protocol; changes to measurement parameters can only be made with access via the master.'

Discover the new possibilities!
If you'd like to get first-hand experience of Kistler's digital innovations and our expanded service offering for test benches and calibration, you're warmly invited to visit us at the trade fair in Nuremberg from 28 to 30 November 2017 on stand 526 in hall 4A!

Illustration 1, a

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Illustration 1, b

Illustration 2

Illustration 3

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Illustration 4

Captions:

Illustration 1, a and b: Kistler's digital industrial charge amplifier (Type 5074A) is the world's only amplifier for quasi-static measurement processes with piezoelectric sensors on real time-capable Industrial Ethernet (IE). It allows direct integration of any desired sensors with charge signals, and settings on the measurement amplifier can be made via the machine control.
Illustration 2: Kistler's new Type 5074A charge amplifier allows up to four sensors per unit to be connected. Each measurement channel can be individually configured and controlled. What's more, this unit covers the main Ethernet standards – EtherCAT, Ethernet/IP and ProfiNet. This means that all parameters and measurement data can be set and called up directly via the machine control.
Illustration 3: With a resolution of up to 8192 pulses per revolution – unprecedented on the market – the KiTorq 4550A is used to determine torque, speed or rotation angle
Illustration 4: The 4503B offers a host of extended functionalities, bringing it into line with the very latest market requirements.

About the Kistler Group

Kistler, the originator of piezoelectric measuring technology, 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. This owner-managed Swiss corporation plays a key part in the evolution of automobile production and industrial automation, and its innovative sensor technology also helps foster the development of many newly emerging sectors. Drawing on our extensive application expertise, and always with an absolute commitment to quality, Kistler drives innovations ahead in lightweight construction, vehicle safety, emission reduction and Industry 4.0.

Over 1,850 employees at 61 facilities across the globe are dedicated to the development of new measurement solutions, and they offer individual application-specific support at the local level. Ever since it was founded in 1959, the Kistler Group has grown hand-in-hand with its customers and in 2016, it posted sales of CHF 364 million. About 10% of this figure is reinvested in innovation and research – with the aim of delivering better results for every customer.

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