

Press release

Helping engine developers to meet tomorrow's challenges

Kistler relaunches its KiBox as a comprehensive powertrain diagnostics system

Winterthur, May 2021

Ever since Kistler launched its KiBox in 2009, this measurement system for combustion engine development has held a leading position on the market. And now, Kistler is unveiling the KiBox2: a new and completely remodeled version of the KiBox featuring the latest advances in connectivity, usability and software together with capability for conventional, electric and hybrid powertrain analysis. Designed as a modular and extendable platform, the KiBox2 opens the way for development engineers to attain unprecedented levels of efficiency in powertrain optimization.

Automotive design is undergoing a radical transformation: electric and fuel-cell vehicles are gaining ground on global markets – but internal combustion engines will continue to play a key part, with plenty of scope for ongoing optimization. To meet the challenges of this new era in the evolution of the automobile, development engineers need measurement technology that is flexible and easy to use. Kistler's response: the all-new KiBox2, a comprehensive powertrain diagnostics system for engine development. Based on innovative open architecture, this is a complete solution for electric as well as non-electric powertrains – a powerful analytical tool that will help customers minimize their time to market and stay one step ahead of the competition:

- Versatile in-vehicle and test bench testing, irrespective of electrification level
- Verified real-time performance for both closed-loop and in-cycle engine control
- State-of-the-art user interface with active user guidance
- Maximum connectivity including WLAN, hotspot capability and GPS
- Full backward compatibility with KiBox, extendable with software upgrades
- Future-proof system architecture based on flexible hardware and software modules

New modular system architecture featuring state-of-the-art technologies

Modularity is a key advantage of the KiBox2, with both hardware and software designed according to the modular principle. The new solution from Kistler also includes the KiBox Cockpit software: an open ecosystem for parametrization, visualization and analysis that ensures seamless connection to third-party devices. Thanks to the advanced data management functions included, testing efficiency is significantly higher. The user experience is now enhanced by active-intuitive guidance with voice control and audio feedback to guarantee safe and efficient operation while driving. The list of new benefits goes on: an improved signal conditioning for the crank angle sensor, a bidirectional CAN-FD interface, and the option of cascading up to four KiBox2 units including PTP (Precision Time Protocol).

The key to maximum efficiency in engine development

By integrating measurement and analysis capability for both electric and combustion-based powertrains in the KiBox2, Kistler has developed one of the most versatile and comprehensive powertrain diagnostics systems available on today's market. Outstanding usability, advanced data management features and modular expandability make this solution even more attractive.

And as an added benefit, customers can enhance their engine development capabilities by using metrics for electric machine efficiency characterization, as well as in-cylinder pressure metrics for "normal" and "abnormal" combustion, including new synthetic fuels. Janko Meier, Product Manager Systems at Kistler, concludes: „The new KiBox2 is a paradigm shift for propulsion system measurement, leveraging the competences of the Kistler Group, to provide a complete, efficient powertrain diagnostic and optimization solution.”

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



The new KiBox2 from Kistler is a comprehensive diagnostics system for powertrains of all types – equally suitable for in-vehicle and test bench use.

Half the size of its predecessor – but with twice the functionality: the new KiBox2 from Kistler, for measurement and analysis of both electric and combustion-based powertrains.



In-vehicle testing with the KiBox2 is facilitated by maximum connectivity via WLAN and GPS and innovative usability features like active user guidance and voice control.



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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 2,050 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 2020, it posted sales of CHF 361 million. About 9% of this figure is reinvested in research and technology – with the aim of delivering better results for every customer.