World Premiere: Continental’s New Brake System for Electronic Stability Control Debuts at Changan

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The new generation of conventional electronic brake systems, the so-called MK 120 ESC, has been firstly put into production in the Chinese market

- The compact and efficient electronic brake system meets the needs of electrification and automated driving with cyber security features and over-the-air functionality

- Production in Shanghai (China) with further production locations planned in Europe, Japan and India for worldwide customers

Frankfurt am Main, Germany, May 17, 2023. Technology company Continental supplies Chinese car manufacturer Changan with its new generation of electronic brake systems for Electronic Stability Control (ESC), the MK 120 ESC. This marks the first time that the MK 120 ESC enters series production worldwide. Changan equips its latest Oshan X5 Plus and Uni-T models available in the Chinese market with the brake system. The latest generation of Continental’s conventional electronic brake system is highly efficient, offers cyber security features and over-the-air (OTA) functionality, and can be easily installed in the vehicle.

> We are developing new brake systems to meet the needs of trends like electrification, assisted and automated driving. Our MK 120 ESC guarantees high active safety performance and provides comfortable driving experience. The worldwide first market entry with our brake system at Changan is an important milestone for us,

said Dennis Fritsch, Head of Continental's Active Safety and Controls Segment. The MK 120 ESC is produced at Continental’s Shanghai

(China) plant. Further production locations in Europe, Japan and India will follow. The system is targeted toward passenger cars from manufacturers worldwide. A further start of production is planned with a European car manufacturer in the course of 2023.

Reduced weight for energy and emission savings as well as increased range

Lightweight and compact components are becoming increasingly important to help vehicles with internal combustion engines save energy, reduce emissions and to increase the range of electric vehicles. Compared to the previous generation, the design of the valve block, solenoid valve, pump and motor on the MK 120 ESC has been completely optimized. With the same performance, the weight is about five percent lighter, and the size is about seven percent smaller than the previous generation.

Individual security key for maximum security

With the development and promotion of assisted and automated driving, the scope of vehicle safety has expanded from functional safety to cyber security. The MK 120 ESC adopts an embedded hardware security module in line with the high requirements for cyber security in the global industry. The brake system contains cryptographic functions that can be used to introduce security keys. These keys are generated individually for each product, which ensures maximum security because even if one car is hacked, a second one is still protected. The MK 120 ESC can also realize other customized information security functions, such as secure boot, data security protection and communication security protection to achieve all-round security protection.

Ready for service-oriented, centralized vehicle system architecture

The high computing power of the new MK 120 ESC brake system meets the highest international authoritative standard for automotive functional safety. It supports AUTOSAR-based software and multi-channel controller area network with flexible data rate communication, preparing for the trend from a distributed to service-oriented, centralized vehicle system architecture. The product can meet various over-the-air technology requirements and better support multiple application scenarios of software upgrading and iteration.

Media Spokesperson and Topic Manager Safety and Motion

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