

Leoni announces first business success for the zone control units developed with Valeo

On the way from wiring harness expert to system supplier

Kitzingen, 6 July 2023 – Leoni, leading supplier of wiring systems and power distribution, and Valeo, leader in ADAS sensors and related functional software with a major electronics expertise, synergize their strengths to bring the best-in-class solution for zone controllers, key elements of the future vehicles. This cooperation was the basis for contributing with zone control units to the recently announced partnership between Renault Group and Valeo on the SDV (Software Defined Vehicle).

By combining their expertise, Valeo and Leoni have created an innovative and easy-to-integrate technology that enables the integration of more intelligence, functionality and performance in the vehicle. At the same time, it reduces system complexity as well as the amount of wiring – and thus also weight and costs.

In the cooperation, Leoni is responsible for the development of intelligent power distribution. Other key areas are the implementation of modular connection systems with a focus on automated wire harness production, thermal management and the optimization of packaging at vehicle level. Leoni is thus responsible for and optimizes the fail-operational power supply, which is crucial for automated driving functions in particular. Valeo takes overall responsibility for the project, develops the microcontroller and gateway components, and is in charge of production.


While already highly regarded by automotive manufacturers as a supplier of customer-specific wiring harnesses (KSK), Leoni is now successively expanding its portfolio to include innovative components and know-how for the future.

“The first series order is a confirmation of Leoni’s goal to become a system supplier for the wiring system of the future and to take a leading role in the development and realization of zonal architectures,” says Walter Glück, Chief Technology Officer of Leoni’s Wiring Systems Division.

In addition to the cooperation with Valeo to develop the zone control units, Leoni’s portfolio includes electronic power distribution units, the development of zonal wiring system architectures and automated production lines with which sub-harnesses for zonal approaches can be manufactured.

With zonal architecture, one or more high-performance computers serve as the “brain” of the vehicle, where all essential computing tasks and decisions take place. Several zone controllers are grouped around this “brain” and perform local tasks on the periphery. For example, they handle power distribution in their area, collect all the data from the sensors and transmit it to the high-performance computers in a bundled and time-structured manner.

This level of power distribution, connection of sensors and control of actuators creates the basis for software-defined vehicles (SDV). Software-based functionalities such as automated driving, personalization and infotainment as well as connected services require an interface to the physical layer of the vehicle environment and the vehicle itself, which requires a predictive architecture of the wiring system and zone control units. Only in this way can new and updated functions and services be offered as software in an existing vehicle architecture.

 *Related illustration material can be downloaded next to this release at <https://www.leoni.com/en/press/releases/details/renault-valeo/>*

About the Leoni Group

Leoni is a global provider of products, solutions and services for energy and data management in the automotive industry. The value chain ranges from standardized cables and special and data cables to highly complex wiring systems and related components, from development to production. As an innovation partner with distinctive development and systems expertise, Leoni supports its customers on the path to increasingly sustainable and connected mobility concepts, from autonomous driving to alternative drives as well as charging systems. To this end, Leoni is developing next-generation cable solutions and wiring systems that reduce complexity and enable higher levels of automation, for example through zonal architecture. The market-listed group of companies employs about 95,000 people in 27 countries and generated consolidated sales of EUR 5.1 billion in 2022.



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