

Leoni develops wiring systems for the next generation of commercial vehicles

Customised solutions from a single source help customers on their way to alternative drives and automated driving

Nuremberg/Hanover, 11 September 2024 – Efficient, green, future-proof: from prototype to series production, Leoni is taking the development of wiring systems for demanding use in commercial vehicles to a new level – and is thus already making a significant contribution today to the increasingly sustainable and networked mobility of tomorrow.

“As the nervous system of the commercial vehicle, our latest-generation wiring systems not only impress with improved performance values, but also reduce production costs at our customers’ plants thanks to customised solutions,” says Walter Glück, CTO of Leoni’s wiring systems division WSD. And this applies to both the classic low-voltage segment and the high-voltage segment as one of the key components for commercial vehicles with alternative drive systems and/or increasingly automated functions. “This is made possible by our in-depth expertise, from joint planning and project-specific concept development to the integration of the finished wiring system into the series model, all from a single source.”

As a partner in the government-funded ATLAS-L4 research and development project (Automated Transport between Logistics Centers on Level 4 Expressways), Leoni’s engineers are developing the redundant wiring system and the intelligent power distributors. Both components make a significant contribution to enabling highly automated trucks to drive on the motorway and thus ensure greater safety, efficiency and fewer traffic jams. ATLAS-L4 will be on show at the IAA Transportation 2024 in Hanover at the stand of project partner MAN Truck & Bus.

The liquid-cooled high-voltage cables from Leoni’s cable division ACS enable an immediate reduction in the CO₂ footprint. Instead of traditionally relying on ever larger cable cross-sections to control the high heat

generated by high current flows, LEONI Hivocar Cool cables have a coolant supply integrated into the cable. Compared to conventional charging cables, they reduce the cable weight by up to 75%. In addition, the liquid-cooled charging cables allow up to 2.5 times the current carrying capacity with correspondingly shorter charging times for commercial vehicles with electric motors.

Leoni's developers always keep an eye on the effects of charging via the Megawatt Charging System (MCS) on each individual component of the vehicle electrical system. Highly integrated high-voltage distributors, for example, as well as optimised high-voltage wiring systems meet the performance requirements in terms of safety and energy efficiency and enable the wiring system to be optimally positioned in the commercial vehicle. Optional busbars in the overall wiring system also increase the degree of automation in final assembly for customers, which means faster installation times.

“Alternative drives, decarbonization, autonomous driving, connectivity: we help our customers to meet the challenges that the industry's megatrends pose for the nervous system of their products,” says Xavier Paurise, CSO of Leoni's wiring systems division WSD. As a long-standing partner in the commercial vehicle market, Leoni is known for offering technically strong solutions worldwide. “We offer real added value in the form of efficiency and sustainability.”

As one of the few automotive suppliers on the market, Leoni develops and manufactures automotive cables and wiring systems for passenger cars as well as trucks and special vehicles with their particular challenges. The growing importance of the commercial vehicle sector is emphasised by the company in parallel to the constant innovations in research and development with simultaneous investments in production. For example, a new plant in Agadir, Morocco, which has been specially optimised for commercial vehicle wiring systems, has recently been added to Leoni's production network.

Xavier Paurise, CSO Leoni WSD: “Our global positioning enables the all-round package that our customers value so much: strong technological support from single cables to customized wiring systems, a presence in all markets, resilient supply chains and, last but not least, a strong focus on sustainability and competitiveness.”

Related illustration material can be downloaded next to this release at <https://www.leoni.com/en/press/press-releases/leoni-hannover-iaa-commercial-vehicle/>

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 group of companies employs about 95,000 people in 26 countries and generated consolidated sales of EUR 5.5 billion in 2023.



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