

Press release

Lippstadt, 18 January 2022



The Coolant Control Hub from HELLA: The revolution for thermal management in electric vehicles

- HELLA combines all the necessary functions for efficient thermal management for the first time in the form of a subsystem
- Innovative 7-way valve ensures ideal temperature of battery, components and vehicle interior at any time of the year and enables efficient heat recovery
- Modular approach allows components to be combined according to requirements

The electrification of the automobile is progressing steadily. However, there are still many challenges to tackle along the way. On the one hand, end users are demanding longer ranges as well as short and fast charging cycles. Manufacturers, on the other hand, need to minimize the impact on battery life through short charge cycles. At the same time, they are looking for ways to make the best possible use of the heat energy generated and to reduce the complexity in the coolant circuit. "One key to successful electrification is efficient thermal management," says Björn Twiehaus, Managing Director responsible for HELLA's global electronics business. "With the Coolant Control Hub, we are therefore now launching an innovative subsystem that revolutionizes thermal management in the vehicle."

HELLA's Coolant Control Hub (CCH) is based on a modular principle and, in its highest level of integration, connects three circuits with each other in the vehicle: the battery, interior electronics as well as the power electronics and electric motor circuit. "What they all have in common is a significant reduction in components, which means that logistics and overall costs for installing the vehicle can be reduced - a major advantage for manufacturers," says Twiehaus.

In addition, the centralization leads to an ideal distribution of thermal energy in the vehicle. The precise order of magnitude after optimization depends on the

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respective architecture and layout of the customer. "We configure a custom product for our customers according to the platform architecture of the vehicle," Twiehaus explains. For example, CCH combines multi-way valves, actuators, distribution systems, electronic circulation pumps, expansion tanks and heat exchangers as well as sensors in one product. "This allows for significant improvements in the structure and number of individual components such as actuators and water lines."

HELLA has implemented an advanced valve concept based on its high level of system expertise in the areas of fluidics, engines, electronics and software, as well as its interfaces with the cooling- and refrigerant system and its many years of know-how in high-performance electric pumps and actuators. The innovative 7-way valve, for which a patent is already pending, makes it possible to achieve ideal heat recovery and thus increase efficiency. In short, this helps distribute heating or cooling demand for the vehicle's critical components as needed, resulting in improved thermal performance.

More information at: www.hella.com/Thermal-management

Please note: This text and corresponding photo material can also be found in our press database at: www.hella.com/press

HELLA GmbH & Co. KGaA, Lippstadt: HELLA is a global automotive supplier with over 125 locations in some 35 countries. With currency and portfolio-adjusted sales of € 6.5 billion in fiscal year 2020/2021 and more than 36,000 employees, HELLA is one of the world's leading automotive supplier companies. HELLA specialises in innovative lighting systems and vehicle electronics and has been an important partner to the automotive industry and aftermarket for more than a century. Furthermore, in its Special Applications segment, HELLA develops, manufactures and sells lighting and electronic products for specialist vehicles.

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