

LIPPSTADT (GERMANY)

**12 March 2025**

## **Precision and versatility: FORVIA HELLA introduces universal angular sensor with CIPOS® technology**

- FORVIA HELLA presents the new Universal Angular Sensor at bauma 2025, the world's leading trade fair for construction machinery in Munich
- Thanks to CIPOS® technology, which has been proven in the OE sector, the modular rotary angle sensor measures precise angles and inclinations, making it indispensable for various applications
- Modular sensor concept allows for easy integration into the vehicle architecture and reduces installation time and costs

In order to meet the growing demands for precision and versatility in various industrial applications, the international automotive supplier FORVIA HELLA has developed the modular rotation angle sensor (Universal Angular Sensor). This will be exhibited for the first time at bauma 2025, the world's leading trade fair for construction machinery in Munich (Hall A5, Booth 436). The sensor is suitable for a wide range of industries, including automotive, automation and mechanical engineering, as well as various manufacturing processes. In addition, it can be used for all types of vehicles, including commercial vehicles and off-highway vehicles such as agricultural and construction machinery. "Thanks to the proven FORVIA HELLA CIPOS® technology, our new rotary angle sensor meets the industry's need for robust and modular measurement solutions," says Dr. Fabian Utermöhlen, Vice President Program Management and Research & Development Lifecycle Solutions at FORVIA HELLA. Series production will start in 2026.

FORVIA HELLA has already produced over 1 billion CIPOS® sensors. This technology, originally from the OE sector, has been successfully transferred to the field for special applications and is also used in the universal angular sensor. A major advantage of this technology is its resistance to magnetic fields and its high measurement accuracy, which enables precise detection of even the smallest angles. "Many applications require highly accurate angle measurements. The universal angular sensor reliably detects different levels and inclinations as well as different rotational positions," explains Utermöhlen. For example, the sensor on the combine measures the position of the mower when lowering, lifting or locking. On a concrete pump, on the other hand, it determines the position of the boom arm, for example. If the sensor is located on the axle, the wheel angle or the wheel

[FOR MORE INFORMATION, PLEASE CONTACT](#)

**Daniel MORFELD**  
Press officer  
+49 (0) 2941 38 7566  
daniel.morfeld@forvia.com

**HELLA GmbH & Co. KGaA**  
Rixbecker Straße 75  
59552 Lippstadt / Germany  
www.hella.com

level can also be precisely quantified. If pedals with a mechanical signal are installed in the vehicle, they can be retrofitted with the universal angular sensor to convert the movement into an electronic signal.

The universal angular sensor is designed to be easily integrated into existing systems. It has a modular design, which means that customers and manufacturers can select different lever arms or fastening elements, flexibly define hole dimensions, use different connector types, and specify measuring angles, communication protocols, signal transmission rates and the nominal voltage. This allows the sensor to be individually adapted to the respective requirements, which reduces installation time and costs.

Another advantage of the universal angular sensor is its robust design, which makes it particularly durable. "In agriculture, machines must function reliably around the clock during the harvest season to avoid downtime. The new sensor ensures this," explains Utermöhlen. This is also ensured by the CIPOS® technology with its multi-channel structure, which enables redundant measurements. Configurations with six or more channels are thus possible. This ensures a high level of reliability, which is crucial for safety-critical applications such as electronic steering and accelerator pedals.

The combination of multi-channel structure, redundancy and high reliability makes CIPOS® the ideal technology for precise angle measurements that comply with ASIL D safety standards, comparable to AgPI e in the agricultural sector. "Thanks to the high safety standard, the universal angular sensor is already prepared for autonomous operation and future technological developments," says Utermöhlen.

**Visit FORVIA HELLA at bauma 2025 in Munich from April 7 to 13, 2025 (Hall A5, Booth 436).**

**Note:** This text and suitable images can also be found in our press database at: [www.hella.com/press](http://www.hella.com/press)

## ABOUT FORVIA HELLA

FORVIA HELLA is a listed international automotive supplier. As a company of the FORVIA Group, FORVIA HELLA stands for high-performance lighting technology and vehicle electronics and, with the Lifecycle Solutions Business Group, also covers a broad service and product portfolio for the spare parts and workshop business as well as for manufacturers of special vehicles. With currently around 36,500 employees at over 125 locations, the Company is active worldwide and generated adjusted sales of €8.1 billion on a preliminary basis in the fiscal year 2024. [www.hella.com](http://www.hella.com)

## ABOUT FORVIA

FORVIA, the seventh largest supplier of automotive technology in the world, combines the complementary technological and industrial strengths of Faurecia and HELLA. With around 260 industrial sites and 78 R&D centers, over 150,000 employees, including more than 15,000 R&D engineers, in over 40 countries, FORVIA offers a unique and comprehensive approach to the automotive challenges of today and tomorrow. FORVIA consists of six Business Groups and a strong portfolio of over 13,000 patents. FORVIA strives to become the preferred innovation and integration partner for automotive manufacturers worldwide. FORVIA sees itself as a pioneer of change that anticipates the transformation of mobility and makes it a reality. [www.forvia.com](http://www.forvia.com)