Introducing the Electric Caliper to Europe: AUMOVIO Receives Award for Semi-Dry Brake System

* **Semi-Dry Brake System with electromechanical brake caliper on the rear axle awarded by a German car manufacturer with start of production (SOP) planned for 2028**
* **Award introduces the Electric Caliper as a core element of next-generation brake system architectures for the European market**
* **Electric Caliper offers manufacturers less fill-and-bleed time in vehicle production, minimal residual drag torque and reduced system weight compared to conventional hydraulic brakes**
* **End-customers profit from shorter braking distances and stable, stutter-free braking at emergency stops**

Frankfurt, Germany, February 19, 2026. Technology and electronics company AUMOVIO has been awarded a large-scale serial production order in Europe for a Semi-Dry Brake System with electromechanical brake calipers. The award was granted by a German car manufacturer, with start of production (SOP) planned for 2028. The market for Semi-Dry Brake Systems is in its nascent phase, and with this award, AUMOVIO is introducing the Electric Caliper to Europe. The heart of the system is the Electric Caliper on the rear axle. Based on a semi-dry setup, the project is the latest evolution toward a new brake system architecture featuring a traditional electrohydraulic (“wet”) brake system on the front axle supplemented by an electromechanical (“dry”) brake on the rear axle. The braking command from the hydraulic brake pedal is transmitted to the calipers on the rear axle solely via the E/E architecture. This combined setup unlocks the advantages of electromechanical braking for future vehicle generations – not least in terms of enhanced recuperation performance and efficiency.

“As Europe catches up to other key markets, this award shows that the global rollout of electromechanical brake systems is gaining momentum. We expect electromechanical braking to secure significant market share over the coming years,” said Boris Mergell, head of the Safety and Motion business area at AUMOVIO. “Having started our first projects in the field of dry braking more than two decades ago, we are now in the perfect position to build on our pioneering experience in this field. Backed by our long-standing and holistic expertise in brake functions, systems and electronics, we are advancing full speed ahead with this transition.”

Electric Caliper: braking without brake fluid as an enabler for future brake systems

The development of new vehicle E/E architectures, combined with increasing electrification and digitalization, are paving the way for brake systems that no longer rely on conventional hydraulic actuation. In traditional hydraulic brake systems, the driver controls the brake pressure by operating the brake pedal. Actuation therefore requires a physical connection from the pedal to the wheel brake, which involves hydraulic lines, pressure build-up, and fluid-based components. With the Electric Caliper, however, the braking force is generated electromechanically: an electric actuator in the brake caliper applies force directly to the brake disc or brake drum without hydraulic pressure transmission at the wheel brake.

By implementing the Electric Caliper within a Semi-Dry Brake System architecture, AUMOVIO has ensured that a hydraulic fallback system remains in place on the front axle, exploiting the benefits of electromechanical braking on the rear axle.

Manufacturers benefit from simplified production and increased efficiency

The Semi-Dry Brake System with the Electric Caliper offers several advantages for vehicle manufacturers:

* **More robust and shorter fill-and-bleed process:** There are less brake lines to fill and bleed with hydraulic fluid during vehicle production, reducing complexity and simplifying assembly processes.
* **Minimal drag torque:** Electromechanical brake calipers have a faster grip than conventional hydraulic brake calipers. This allows for a larger air gap, reducing the residual torque and supporting the vehicle’s efficiency.
* **Lower weight:** The need for fewer hydraulic components such as hydraulic lines results in a lower overall system weight compared to conventional hydraulic brake systems. This helps increase the range of electric vehicles. The weight can be reduced by several kilograms overall, depending on the vehicle configuration.
* **Ready for software-defined vehicles:** As a smart actuator, the Electric Caliper is designed to interact with central computers hosting control functions such as ABS and ESC, and also to support future software-based vehicle functions and new E/E architectures.
* **Algorithm-based repeatability:** AUMOVIO’s Electric Caliper does not require a force sensor, which is commonly used in competitor solutions to monitor and regulate braking force. Instead, intelligent algorithms in the control units calculate and adjust the required braking force based on vehicle behavior and driving conditions. Eliminating this force sensor provides a cost advantage, while at the same time maintaining precise and reliable braking performance.

Benefits for end-customers: shorter braking distances, higher comfort and greater safety

Drivers also benefit directly from the features offered by the Electric Caliper:

* **Shorter braking distances:** Faster, wheel-individual electromechanical actuation generally enables shorter braking distances compared with similarly sized hydraulic brake systems. This is an important safety benefit, especially for emergency braking and automated driving functions.
* **No stutter during emergency braking:** Drivers who have had to brake sharply in emergency situations will have experienced how the brake pedal moves quickly up and down. This can confuse drivers, causing them to reduce brake pressure when in fact the opposite is needed. By decoupling the pedal from the wheel brake, this effect no longer occurs.
* **Higher efficiency:** Minimal drag torque achieved through active caliper retraction helps boost efficiency.
* **Reduced maintenance:** With no brake fluid required on the rear axle, less regular fluid replacements and refilling are required.

From ATE to Continental to AUMOVIO – evolving brand, enduring expertise

AUMOVIO’s long-standing braking expertise and heritage are rooted in ATE, one of the most renowned brake brands with a global presence. In 1998, Continental acquired ATE and continued to expand its brake business as part of Continental’s Automotive group sector. This was spun off in September 2025 as newly formed, independent company AUMOVIO. ATE remains one of the big aftermarket brands to this day and is well-known among consumers. This year, the brand celebrates its 120th birthday, marking more than a century of brake expertise since it was founded in 1906.

**Press contact**

Christopher Schrecke

Media Spokesperson

Safety and Motion

AUMOVIO

Phone: +49 69 7603-61317

Email: [christopher.schrecke@aumovio.com](mailto:christopher.schrecke@aumovio.com)

**Press portal:** [www.aumovio.com/press](http://www.aumovio.com/press)

**Media center:** [www.linkedin.com/company/aumovio](http://www.linkedin.com/company/aumovio)

**AUMOVIO** continues the business of the former Continental group sector Automotive (including the Contract Manufacturing division) as an independent company following its spin-off in September 2025. The technology and electronics company offers a wide-ranging portfolio that makes mobility safe, exciting, connected and autonomous. This includes sensor solutions, displays, braking and comfort systems, as well as comprehensive expertise in software, architecture platforms and assistance systems for software-defined vehicles. In fiscal 2024, the business areas, which now belong to AUMOVIO, generated sales of €19.6 billion. The company is headquartered in Frankfurt, Germany and has over 86,000 employees in more than 100 locations worldwide.

Images and Captions

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| 01\_AUMOVIO\_Electric\_Caliper | Stutter-free emergency braking, less residual torque and no brake fluid needed: the Electric Caliper offers a variety of advantages over hydraulic calipers. |
| 02\_AUMOVIO\_BSR\_Semi\_Dry\_Highres\_EN | In a Semi-Dry Brake System, the Electric Calipers are located on the rear axle and, unlike the hydraulically activated brakes on the front axle, are digitally controlled. |