

Sensata Technologies' New Brake Pedal Force Sensor Enables Safer Brakes for Next Generation Cars

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- As electronics replace legacy hydraulic components in brake-by-wire systems, different sensing technologies are needed for brake pedal sensing.
- Sensata's Brake Pedal Force sensor for electromechanical brake systems improves braking response time by capturing driver intent, even before the brake pedal moves.

SWINDON, England--(BUSINESS WIRE)-- **Sensata Technologies**(NYSE: ST), today announced its new Brake Pedal Force Sensor for electromechanical brakes (EMBs) that enables safer and better performing braking systems.

This press release features multimedia. View the full release here:

<https://www.businesswire.com/news/home/20221005005182/en/>

Automotive electrification and autonomy are powering the trend toward electro-mechanical brakes in next generation cars, especially in hybrid and electric vehicles (EVs). As electronics replace legacy hydraulic components in brake-by-wire systems, there is a need for new sensing topologies in the pedal assemblies. This trend, combined with stricter demands for functional safety, is leading vehicle and brake system manufacturers to consider different brake sensing technologies that ensure EMBs maintain or exceed the performance and safety of legacy systems.

Sensata's micro strain gauge **Brake Pedal Force sensor** supports the future of braking. Implementing this sensor enables the reduction in a vehicle's stopping distance compared to existing technologies. It improves braking by accurately and rapidly capturing a driver's braking intent.

Able to withstand forces up to 600N (scalable to other forces as well), Sensata's brake pedal force sensor meets functional safety requirements up to ASIL C, and can operate at temperatures up to 140°C. The compact design,

flexible integration options and variety of outputs allow engineers to easily customize the sensor for their application.

The new Brake Pedal Force sensor offers several advantages compared to traditional pressure and/or position sensing technologies including:

- Enables accurate, robust, and fast driver intent measurement in Brake-by-Wire e-Pedals with zero or limited movement
- Improves response time by more than 10ms, reducing braking distance
- Detects mechanical failure of the system due to a stuck pedal
- Supports hydraulic, electro-hydraulic and brake-by-wire braking architectures

To learn more about Sensata's new brake pedal force sensor or read a white paper about next generation brake pedal sensing technologies for electromechanical brake systems, visit www.sensata.com/products/force-sensors/brake-pedal-force-sensor .

About Sensata Technologies

Sensata Technologies is a global industrial technology company striving to create a cleaner, more efficient, electrified and connected world. Through its broad portfolio of sensors, electrical protection components and sensor-rich solutions which create valuable business insights, Sensata helps its customers address increasingly complex engineering and operating performance requirements. With more than 21,000 employees and global operations in 13 countries, Sensata serves customers in the automotive, heavy vehicle & off-road, industrial, and aerospace markets. Learn more at www.sensata.com and follow Sensata on [LinkedIn](#), [Facebook](#), [Twitter](#) and [Instagram](#).

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