eBrakeTM

A Brake-by-Wire Solution for Electric Vehicle



As Electric Vehicle (EV) technology continues to advance, every piece of an EV must be opti-

mized for energy efficiency, performance, and durability. CTS' eBrakeTM enables OEMs to implement brake-by-wire, a type of electronic braking system (EBS), streamlining foot well packaging and reducing space required for brake pedal movement. Our solution provides the driver with a better braking experience by creating a smoother, more premium feel.

When force is applied to the eBrakeTM, rather than triggering a mechanical force in the hydraulic system, electronic position signals are sent to the braking system. This system also creates more free engine bay space, enabling more commonality between LHD and RHD vehicles and reducing vehicle design and production costs. Energy efficiency can be optimized through regenerative braking, which takes the energy created by the brake system and stores it for reuse.



eBrake™ Pedal

APPLICATION

The eBrake™ eliminates the need for mechanical braking linkage in existing vehicle architecture, while reducing system weight and improving energy efficiency. Because of our modular approach, solutions can be customized to ensure the best possible fit for a given vehicle. This design flexibility also allows for various mounting configurations.

Safety being at the forefront of our design process for automotive parts, this system utilizes multiple sensor technologies to protect end users. By integrating both Hall-effect and inductive position sensors, there is no single chip supplier, and a backup sensing method is always available. The eBrakeTM also supports ASIL D systems, for manufacturers whose architecture includes both a primary and secondary braking system.

CTS has been creating innovative automotive pedal solutions for over four decades. As we continue to expand our support of EV technology, this new product is one more way for us to partner with leading vehicle manufacturers in their electrification journey.

AUTOMOTIVE EXPERTISE

CTS Corporation began expanding into the automotive market in the early 1970's, when the U.S. government first issued requirements for controlling automotive emissions. To meet the new demand for throttle positioning sensing and exhaust gas recirculation controls, we developed custom under-the-hood and chassis position sensors.

Today, we are a leading provider of sensing solutions, smart actuators, and pedals. With decades of experience, we understand the footwell space of both traditional and electric vehicles, and the sensing technologies and design principles that made our mechanical pedals so reliable have been applied to a number of new EV products like the eBrakeTM. Combining trusted legacy architecture with the latest breakthroughs, CTS is rapidly moving toward more environmentally friendly, energy efficient solutions for a cleaner future.

ABOUT CTS

Founded in 1896, CTS Corporation (NYSE: CTS) is a leading designer and manufacturer of sensors, actuators, and electronic components. A solution provider to OEMs in the aerospace, communications, defense, industrial, information technology, medical, and transportation markets, CTS provides advanced technology, exceptional customer service and superior value to industry partners. Located in the Americas, Europe, and Asia, we aim to deliver innovative sensing, connectivity and motion solutions for the creation and advancement of products and services around the world.

CONTACT INFORMATION

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