

## NEWS RELEASE

# Sensata Technologies Introduces Active + Passive PyroFuse to Advance High-Voltage Safety

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- Sensata's Active + Passive PyroFuse combines system-triggered and current-driven interruption in a single device, delivering reliable, redundant high-voltage fault protection for electrified systems.
- Improves fault response and resilience in high-voltage architectures by reducing dependence on upstream sensors and control signals.
- Enables system-level optimization by supporting faster fault interruption, helping OEMs simplify protection strategies, reduce component requirements, and lower overall system cost and complexity.

SWINDON, United Kingdom--(BUSINESS WIRE)-- **Sensata Technologies** (NYSE: ST), today announced the launch of its Active + Passive PyroFuse an advanced high-voltage protection device that combines active system-triggered and passive current-driven interruption in a single solution. The device is designed to deliver reliable, redundant fault protection while enabling faster response and system-level simplification in electrified applications. Sensata's A+P PyroFuse, the STPS500P Series, is designed to address the limitations of traditional circuit protection approaches and the growing complexity of modern high-voltage electric vehicle and electrified system architectures used across a range of applications, including electric vehicles, commercial transportation, charging infrastructure, and industrial electrification systems.

As electrified systems increase in voltage, current, and complexity, OEMs often face tradeoffs between active protection solutions that rely on system signals and passive devices that respond only to current or thermal conditions. These tradeoffs can impact response time, reliability, and overall system design.

Sensata's A+P PyroFuse addresses this challenge by integrating both protection mechanisms into a single device. The solution combines signal-triggered pyrotechnic protection with a mechanically driven, current-based passive trigger. This dual-trigger design provides redundancy at the device level, helping ensure reliable circuit interruption

even if upstream electronics or sensors are unavailable.

Unlike passive solutions that rely on thermal elements, the new A+P PyroFuse uses a current-driven mechanism that responds directly to electrical conditions. This enables fast interruption performance, including millisecond-level response independent of current level, helping protect contactors, busbars, and downstream components before damage occurs.

By improving response speed and reliability, the solution enables broader system-level benefits. Faster interruption can reduce peak energy exposure and lower short-circuit demands on contactors, allowing OEMs to simplify architectures, reduce component sizing, and lower overall system cost and complexity.

Key features and benefits of Sensata's Active + Passive PyroFuse include:

- Dual active and passive protection in a single device: Combines system-triggered and current-driven interruption to provide redundant protection and maintain reliability even if system signaling is unavailable.
- Fast passive response independent of current level: Reacts directly to electrical current rather than thermal melting, enabling millisecond-level interruption to help protect contactors, busbars, and downstream components.
- Enables system-level simplification and optimization: Faster interruption helps reduce contactor short-circuit requirements and simplify architectures, allowing OEMs to lower cost, size, and complexity across the high-voltage system.

"EV manufacturers have long been forced to work around the limitations of active-only or passive-only protection," said **Markus Schwabe**, Executive Vice President of Automotive at Sensata Technologies. "Our Active + Passive PyroFuse removes that tradeoff and helps our customers design safer, more resilient systems with less complexity."

The A+P PyroFuse complements Sensata's broader portfolio of high-voltage contactors, sensing, and electrical protection technologies, enabling OEMs to partner with a single supplier for integrated, system-level safety solutions.

To learn more about Sensata's Active + Passive PyroFuse, visit **[www2.sensata.com/AP-PyroFuse](http://www2.sensata.com/AP-PyroFuse)**.

To explore how evolving high-voltage EV architectures are reshaping battery isolation and how combined active and passive protection strategies can improve safety and system resilience, register for the webinar **[www2.sensata.com/AP-PyroFuse-webinar](http://www2.sensata.com/AP-PyroFuse-webinar)**.

About Sensata Technologies

Sensata Technologies is a global industrial technology company striving to create a safer, cleaner, more efficient and electrified world. Through its broad portfolio of mission-critical sensors, electrical protection components and sensor-rich solutions, Sensata helps its customers address increasingly complex engineering and operating performance requirements. With more than 16,000 employees and global operations in 13 countries, Sensata serves customers in the automotive, industrial, aerospace, defense and commercial equipment markets. Learn more at [www.sensata.com](http://www.sensata.com) and follow Sensata on **LinkedIn, Facebook, X and Instagram.**

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