

Combining Occupant Classification and Seat Heating

BodySense™ Gen III

BodySense™ Gen III is the latest generation of IEE's proven capacitive sensing system supporting airbag suppression for child restraint systems in vehicles.

Combining Safety and Comfort

Vehicle manufacturers are currently faced with the challenge of how to integrate multiple components into the limited space available in a vehicle's seat, without compromising safety, comfort, design or performance. To meet this, IEE has developed BodySense™ Gen III, combining capacitive technology with seat heating, and significantly reducing the number of components for seat heating and occupant classification.

BodySense™ Gen III can be used in combination with any seat heater technology: resistive wire or carbon fiber, as well as PTCR (Positive Temperature Coefficient Resistance) technology. It can also be integrated into the vehicle's electrical infrastructure without any modifications required, other than to the cable harness of the seat heater.

Reliable Classification

Correct classification of three and six-year-old children in rear facing CRS, according Euro NCAP's definition of automatic airbag deactivation for passenger seat position, is considered a challenge for many B-surface pressure-based occupant classification systems. This challenge is not an issue for BodySense™ Gen III. Its weight-independent occupant classification correctly identifies children in all the CRS, as requested by NHTSA and Euro NCAP safety protocols.



Key Benefits

- **Weight independent capacitive system:** suitable for global airbag suppression strategies, covering all common US and European regional requirements.
- **Compatible with NHTSA and Euro NCAP child seat definition:** this covers NHTSA's defined child seat list with CRS for a one-year-old and Euro NCAP's automatic passenger airbag deactivation for all rear-facing CRS, including the ones suitable for six-year-old children.
- **Fewer components:** leading to the elimination of many design constraints, less weight and, in most cases, fewer costs.
- **System responsibility with one supplier:** in combination with IEE's SafeHeat, BodySense Gen III becomes an integral sensing and heating system, supplied by a single company.



SafeHeat or
any other seat
heater

BodySense™
Gen III ECU

About US

IEE is a worldwide pioneer in passenger presence detection and one of the leading suppliers of advanced automotive interior sensing solutions. Founded in 1989 and headquartered in Luxembourg, it has operations in Europe, America and Asia. The innovation driven company has a long history in developing and manufacturing cutting-edge sensing systems for automotive industry, building management and eHealth. IEE employs 4,100 people worldwide and more than 10% of the company's workforce is engaged in Research & Development.

For more information, please visit www.iee.lu