

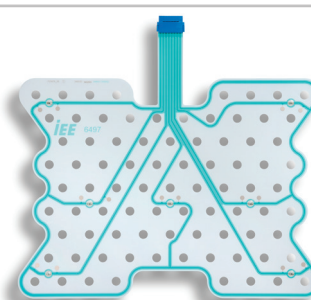
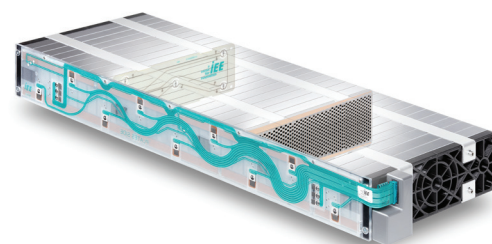
Sensing & Heating Solutions for Batteries

Improve the safety and reliability of your battery pack

At IEE, we develop applications for battery management optimization together with our customers to make your battery packs safer, less complex, more efficient and easier to assemble. With 30 years' experience of working with international automotive OEMs and over 400 million vehicles equipped worldwide, our innovative sensors allow for exceptional, lightweight design, robustness and ease of integration, no matter the application.

Why choose our foil-based components?

- Thin, flat, compact, easy to handle when assembling the battery pack
- Built on flexible and very thin polymer foil
- An ideal combination of light weight and high mechanical robustness
- High adaptability to various applications thanks to the flexible design, from simple shapes to complex 3D and curved applications, and different connection technologies
- Strong engineering support and flexibility during the development phase
- High integration density while being cost effective
- Enables automated/robot manufacturing
- Customer-specific: tell us your needs and we make the sensor for it



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.

Contact Us

For more information, please visit www.iee-sensing.com or send us an email at battery.management@iee.lu

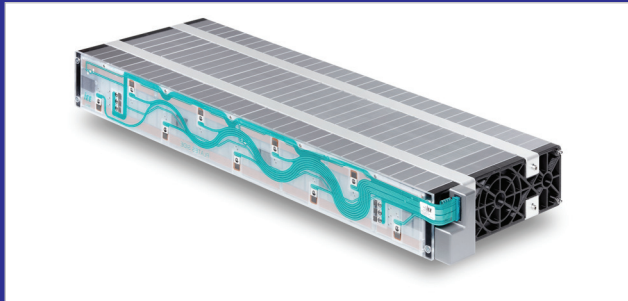
a
sense
for
IEE
innovation



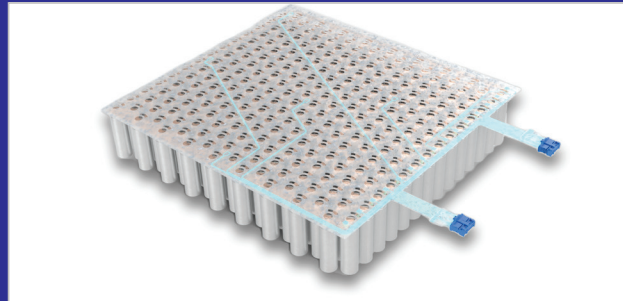
Product range

Battery Management Components

Interconnection and Sensing Components



Cell Voltage Tap Connector for prismatic and pouch cells

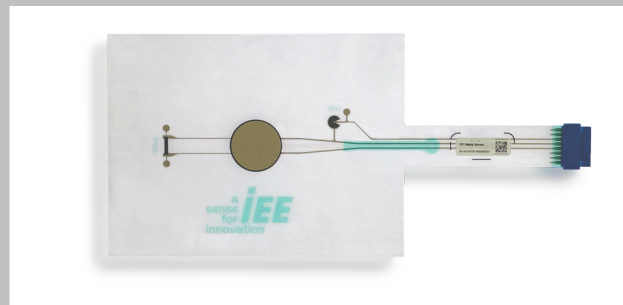


Cell Connection and Sensing Unit for cylindrical cells, suitable for single-sided or double-sided bonding

- Fully customized all-in-one solution for Electric Vehicle battery packs
- Electrical interconnection between the cells and/or temperature sensors and the control unit
- Ideal for monitoring the voltage of battery cells and cell charge balancing, using reliable connection technology

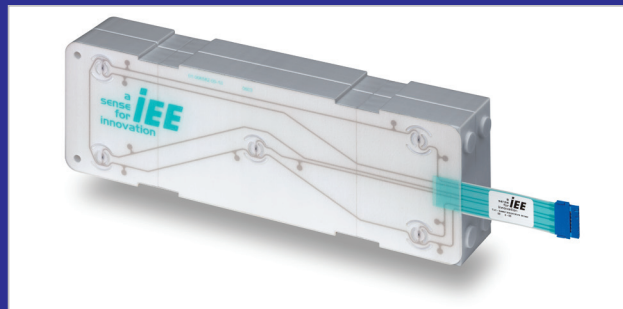
State-of-Health Sensors / Swelling Detection

- Detect critical situations in battery packs early on, such as Thermal runaway or degrading State-of-Health
- Enable compliance with safety regulations, such as UN GTR20/R100 and China GB 38031
- Reliable detection with self-diagnosis
- Easy to assemble between battery cells in a pack or module
- Cost efficient, manufactured in an automated printing process



Temperature Sensors

- Precise knowledge of temperature distribution inside a battery pack: Measure exactly where needed
- Slim and flat, can be fitted between individual cells inside the battery module
- Supports a high number of temperature sensors, either as discrete components, or printed sensors
- Acts as electrical insulation sheet
- Fit for pouch, prismatic or cylindrical cells



High Voltage Battery Heaters

- Delivering the right amount of heating power exactly where it is needed
- Mechanically robust and reliable
- Optional with self-protecting functionality
- High productivity printing process on polymer material

