Honeywell Announces a 24 V Battery Electrolyte Sensor (BES)

An extension of the Honeywell Battery Safety Sensor Portfolio

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Honeywell announces the release of its 24 V Battery Safety Electrolyte Sensor (BES), an extension of the previously launched BES Series. This product extension enables the seamless integration of the BES Series into high-voltage battery packs that operate on 24 V. The Honeywell battery safety sensor portfolio is designed to enhance safety in lithium-ion, on-road, and stationary battery applications.

In light of the ongoing energy transition, industries across the board – including stationary battery systems, on-road vehicles, and heavy-duty equipment – are increasingly dependent on lithium-ion batteries. While these batteries play a crucial role in powering the future, they are not without risks, particularly when exposed to thermal, electrical, or mechanical stresses, including manufacturing defects.

The Battery Safety Electrolyte Sensor (BES) with a 24 V voltage supply enables system designers of high-voltage systems to address lithium-ion safety concerns head-on, while reducing overall system cost by eliminating the need for a dc-to-dc converter. Utilizing Honeywell proprietary Li-ion Tamer™ electrolyte gas detection technology, the BES is capable of identifying "first vent" events that serve as early warning signs of potential battery malfunctions. Such early detection is vital for ensuring both vehicle safety and the well-being of passengers and drivers alike. The BES Series not only meets but exceeds industry standards for performance and reliability.

As we continue to innovate in the realm of battery safety, Honeywell remains committed to providing advanced solutions that empower industries and improve safety standards worldwide. We look forward to seeing the impact of the Battery Safety Electrolyte Sensor across electric vehicle applications and beyond. For detailed technical information, please reach out to your Honeywell representative.

ABOUT BATTERY SAFETY ELECTROLYTE (BES) SENSORS

The Battery Safety Electrolyte Sensor (BES) Series enhances reliability in battery health monitoring by detecting multiple gases released during thermal runaway, which minimizes the risk of false negatives. Its uncomplicated integration process is facilitated by a rate of change algorithm, eliminating the need for meticulous target gas threshold testing. Consequently, this feature not only reduces integration costs but also shortens project timelines, making the BES solution an invaluable asset for ensuring battery safety.

Furthermore, the BES sensor is equipped with dual operating modes, the sensor can be switched between ECO Mode and NORMAL Mode via CAN commands. In ECO Mode, power consumption is significantly reduced by 60 %, as CAN communication is disabled; however, it automatically reverts to NORMAL Mode to send alarm signals to the Battery Management System (BMS) in the event of an alarm condition. In NORMAL Mode, the sensor operates at full functionality with active CAN communication.

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