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Smart Battery Sensor (SBS)



The Smart Battery Sensor (SBS) continuously measures the battery current, voltage and temperature using noncontact technologies including a Hall-effect current sensor.

This non-intrusive current sensing solution offers many advantages over shunt type current measurements, mainly related to the fact that no component is inserted in the battery circuit.

The SBS uses patented algorithms developed by Electricfil and tested by a major battery manufacturer to calculate the state-of-health (SOH), state-of-charge (SOC) and state-of-function (SOF) information required by the vehicle's energy management system from the voltage, current and temperature measurements.

Electricfil solution - ready technologies

Characteristics

- Suitable for flooded, gel or AGM lead-acid batteries
- Battery capacity: 30 Ah to 100 Ah
- Battery state output: SOC, SOH and SOF
- Accuracy on all states: $\pm 10\%$
- Optimized response time
- Calibration-free battery replacement
- Non-contact sensing (no break in battery circuit)

- No resistance added to battery circuit
- Interface: 2 or 3-wire, LIN or CAN compatible
- Integrated diagnostics
- Can be used on + or - battery terminals
- Compact package and numerous mounting configurations

Electricfil knowhow

- Full team of battery experts
- Experience in developing ASICs
- Programmable for easy adaptation to ECU needs
- Extensive experience in sensor packages and interfaces
- Long experience with Hall-effect technology

Application domains

Energy management

[Battery](#)