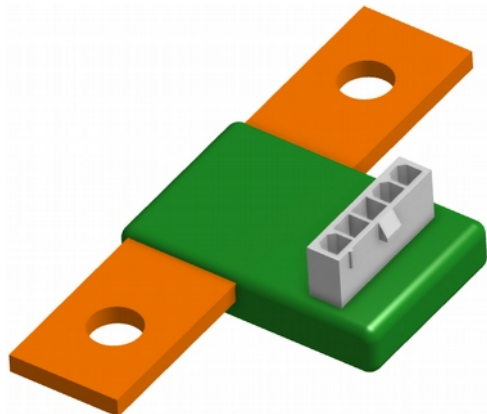


# Battery Sensing and Monitoring System 2.0

## with 4kV Insulation and CAN Interface



### Features

- + Multisensor system: Current (Hall and shunt), voltage, temperature
- + Galvanically insulated design
- + High-side and low-side of HV battery
- + Contactless Melexis 91208 Hall sensor

### Applications

- + Battery monitoring, e-mobility
- + State-of-charge, state-of-health
- + Prototyping, development, test platform
- + Functional safety

### Description

The Battery sensing and monitoring system consists of four sensors: (i) contactless Hall current sensor, (ii) shunt resistor based current sensor (iii) battery voltage sensor, and (iv) temperature sensor. The four sensor signals are read by analog-to-digital converters (ADCs), processed by a programmable STM32 microcontroller, and provided at the output via the CAN interface.

A particular feature of the product is its independent power supply and galvanically insulated design. Therefore the device operates directly with 12V DC and can be attached on both high-side and low-side of the high voltage (HV) battery system.

### Characteristics

Parameter	Typical Value	Unit
Primary input current range	±5...±500	A
Voltage measurement range	±5...±800	V
Measurement accuracy	1.0	%
Operation temperature range	-40 ... 85	°C
Supply voltage	12	V
CAN interface refresh time	1.0	ms

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