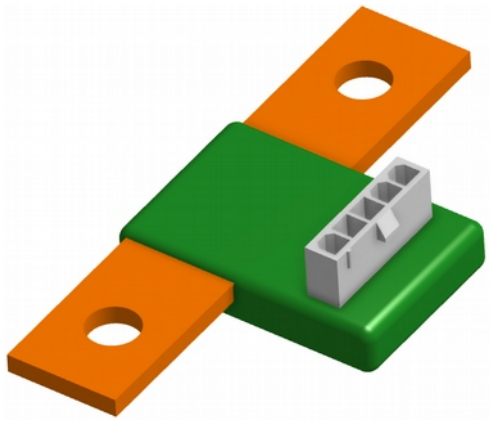
Battery Sensing and Monitoring System 2.0

with 4kV Insulation and CAN Interface



Features

+ Multisensor system (current, 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 three sensors: (i) current sensor, (ii) voltage sensor, and (iii) temperature sensor. The three 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
Maximum power	60	W
Measurement accuracy	1.0	%
Operation temperature range	–50 ... 150	°C
Supply voltage	12	V
CAN interface refresh time	1.0	ms

Please contact us at

maglab AG

Güterstrasse 141
CH-4053 Basel, Switzerland

+41 61 261 16 44
info@maglab.ch
www.maglab.ch

Permanent Magnets Ltd.

B-3, MIDC Industrial Area, Mira-gaon Miraroad-East,
Thane-401104, Maharashtra India

+91 22 62 16 54 00
shuntinquiry@pml.in
www.pmlindia.com