

BCM1



Battery Condition Monitor for Li-Ion batteries

- Early detection of thermal runaway / thermal propagation in Li-Ion batteries
- Full automotive grade module
- OEM-customizable

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Battery Condition Monitor for Li-Ion batteries

Automotive-grade battery condition monitor for early thermal runaway / thermal propagation detection in Li-Ion batteries.

The BCM1 (Battery Condition Monitor) is a fully automotive qualified module for condition monitoring and early detection of thermal runaways in Li-Ion batteries. Its detection method is based on fast recognition and classification of cell outgassing of hydrocarbons / volatile organic compounds (VOCs),

electrolytes and in particular carbon monoxide and hydrogen as lead gases. The BCM1 deploys automotive-proven broadband metal oxide (MOX) sensor technology, capable of detecting these gases. With LIN or PWM communication, optional humidity and pressure sensors and various mounting options, the module can be tailored to almost any electric vehicle or smart energy battery environment. Moreover, its low power consumption ensures least impact on battery range.

Features

- Fast gas detection for earliest notification of thermal runaway / thermal propagation
- Designed to fit many battery system architectures
- Delphi-clip and bayonet mounting options
- Fully OEM customizable
- Optional humidity and pressure sensors

Benefits

- Early indication of critical battery conditions
- Tool-free integration into various battery architectures
- Reliable automotive technology
- Negligible impact on battery range

Applications

- Li-Ion battery condition monitoring & early thermal runaway / thermal propagation detection in automotive and smart energy solutions

Properties

- Rugged AEC-Q100-, ISO/IATF16949:2016- and VDA6.3- conformant design with full traceability
- Watertight IP5K4K, IPx7 and IP9K compliant packaging
- LIN or PWM communication
- Temperature range: -40 – 125°C
- Power consumption: <30mA at 12V
- Dimensions: W 31.3 x L 44.59 x H 35.4mm w/o fixture

Housing options

