



The UBMS-2-4 Battery Management System:
Entirely developed by Dynamis

Dynamis Batterien GmbH has developed a universal battery management system (BMS), specially equipped for the safe use of powerful batteries in demanding medical applications and based on the ATMEL ATmega32HVB chipset.

The BMS can monitor and balance two to four battery cells in series whilst providing precise current measurement, overcurrent shutdown, overvoltage and undervoltage shutdown, temperature measurement and a fuel gauge function. The secondary protection of the BMS offers enhanced safety, protecting against possible occurrence of overvoltage or overcurrent.

The rated current can be up to 40A and the BMS can be customised and configured in a wide range, so that an adaptation of different types of cells (Li-Ion, Li-Polymer, Li-Phosphates, ...), capacities and number of serial cells are possible. The specially developed PC interface allows the monitoring and analyzation of the programmed and current Parameter of the BMS.

DYNAMIS can react to customer requirements and implement other interfaces, such as HDQ bus, I2C, 1-Wire, UART in addition to the existing SM bus interface.

The five on-board LEDs can be connected externally through a standard connector with a pitch of 2.54 mm. As an extension possibility, the connector can also be used as a board-to-board connector to gain access to 5 external I/O-Pins.

This BMS Board serves as a basic module for the development and evaluation of customized BMS solutions.