

# HVBMSv2.1

High-voltage battery management system



## Product information:

The high-voltage battery management system is designed to control the operation of high-voltage batteries in electric cars or stationary installations. The key features of this device include a maximum voltage of 1500V and the ability to connect up to 32 slave boards. Using this device enhances safety during battery operation, prolongs its lifespan, and allows for continuous monitoring of battery parameters.

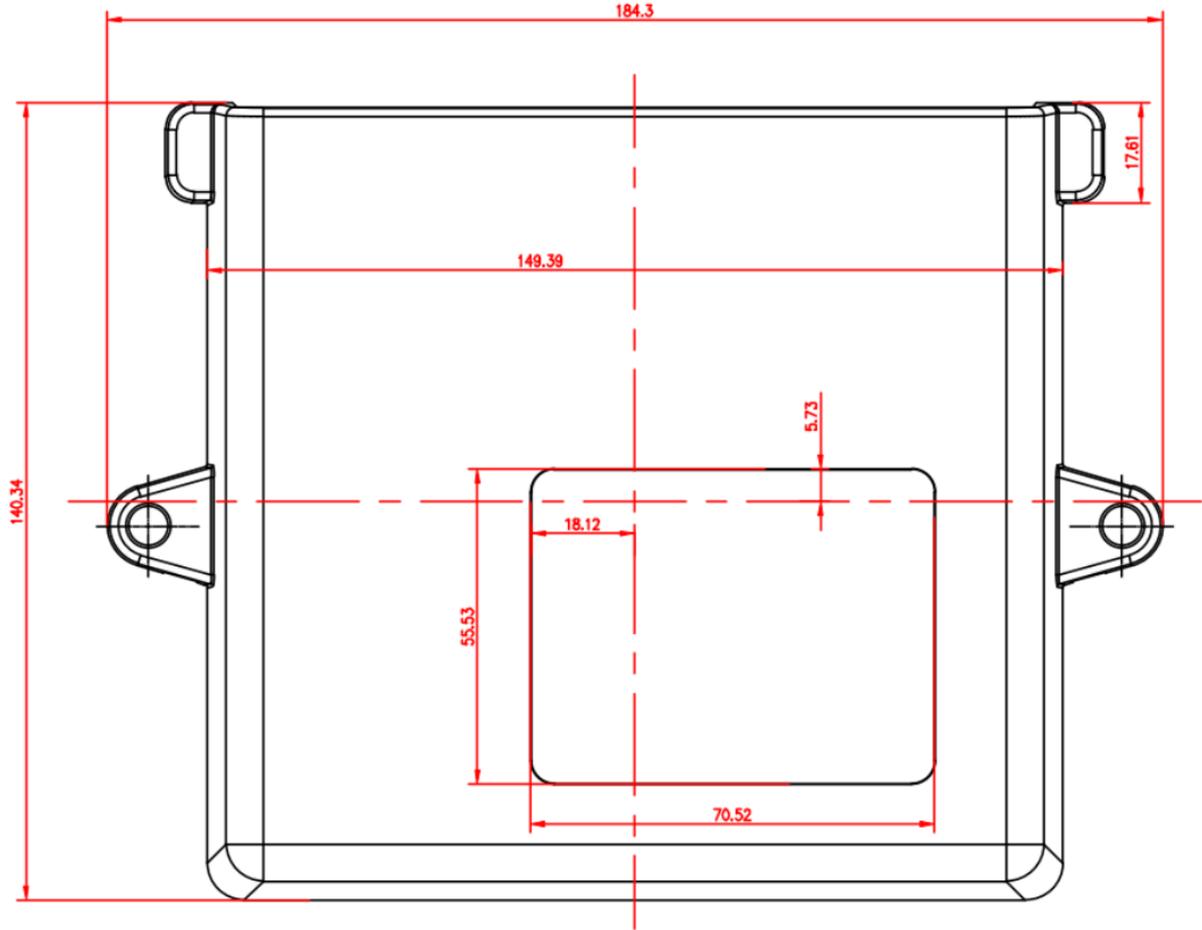
## Functionality:

- Galvanic insulation
- Possibility to connect up to 32 slave boards
- Compact size
- Wide range input voltages
- 3 CAN Buses support
- Multiple inputs and outputs
- Wide range working temperature;  $-40^{\circ}\text{C} \sim +75^{\circ}\text{C}$

## Technical specification:

Parameter		Value
Input voltage range	VDC	18-32 VDC / 9-16 VDC
Number of CAN Buses	-	2 1x CAN Frame Wake-Up, Configurable, 1x Galvanically Isolated
Number of USB buses	-	1x Galvanically Isolated, communication with the application
Bluetooth	-	Communication with the mobile application, possibility to connect an antenna
Number of PWM outputs	-	3 (low side, 100-1000-10000Hz)
Number of GPIO LS	-	15
Number of GPIO HS	-	4
Number of analog inputs	-	3 (0-32V)
Number of 5V power outputs	-	1 (LEM sensor)
Number of measurement channels for LEM-type sensors	-	2 (0-5V)
isoPI	-	1
Number of wake-up inputs	-	1 (KL15)
Diodes	-	3x (green, red, blue)
Interlock loop control	-	1x HVIL (High-Voltage Interlock Loop) (current-based)

Memory card support		MicroSD, up to 64GB FAT32
Temperature sensor support		4 (NTC 10k)
Protection level		IP67
Ambient temperature	°C	-40 ~ +75
Storage temperature	°C	- 40 ~ +70
Humidity	%	≤95, RH, non-condensing
Cooling		Passive
Dimensions: height x width x length	mm	141 x 184 x 30



\* the manufacturer reserves the right to make changes to the parameters and appearance of the product