Current Sensor with Busbar

Mass-Produced Product
Since 2020

- 55% lighter and 64% smaller than current core-type sensors
- The current detection range can be customized

Background or Assignment

Application: Measures charge or discharge battery currents for EVs/HEVs/PHEVs

Issue: Improving mountability by reducing size and weight to fit various automotive systems

Solutions to Challenges

Features/Effects

1 Improves vehicle mountability
- Reduces the size and weight by eliminating cores
- Improves assembility by using built-in busbars

2 Supports additional functionalities

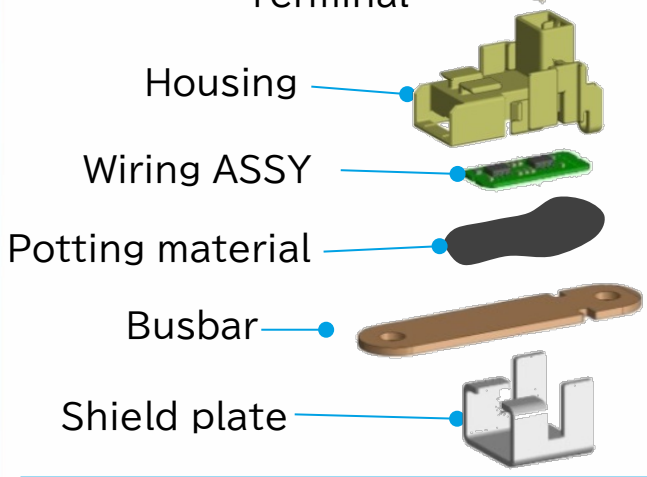
Selectable current detection range for 2 outputs
- Failure diagnosis

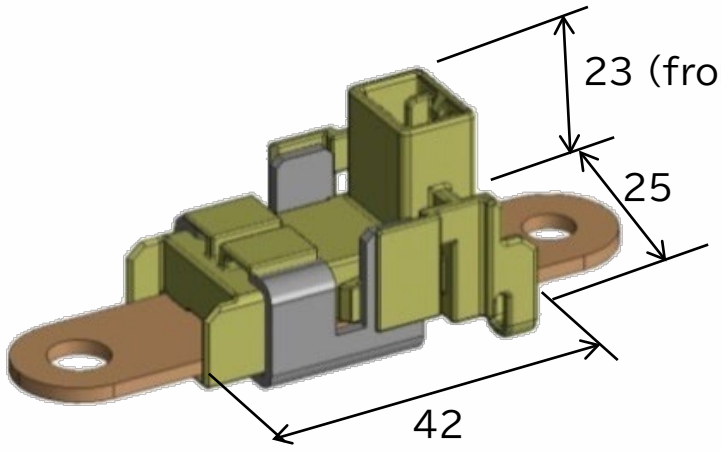
Compatible with various automotive systems

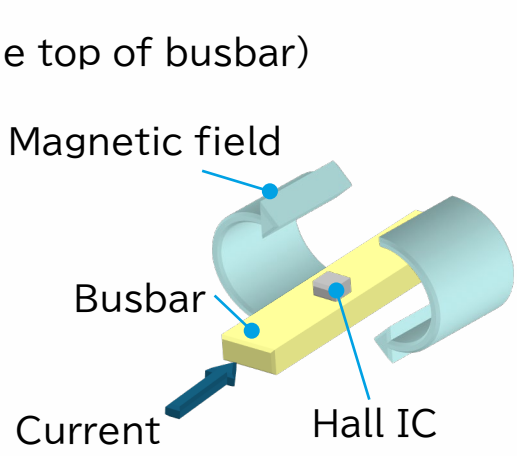
Specifications/Functions

Supply voltage: 5.0V±0.5V
Operating temperature: -40°C to 85°C
Current detection range: 2 outputs
① ±80 A to ±200 A
② ±250 A to ±600 A
Output accuracy: ±2A (offset)
±2% (gain)
Output system: Analog (ratiometric output)
Response time: 100μs or less
Detection method: Detects magnetic flux density using Hall IC
Current consumption: 26mA or less

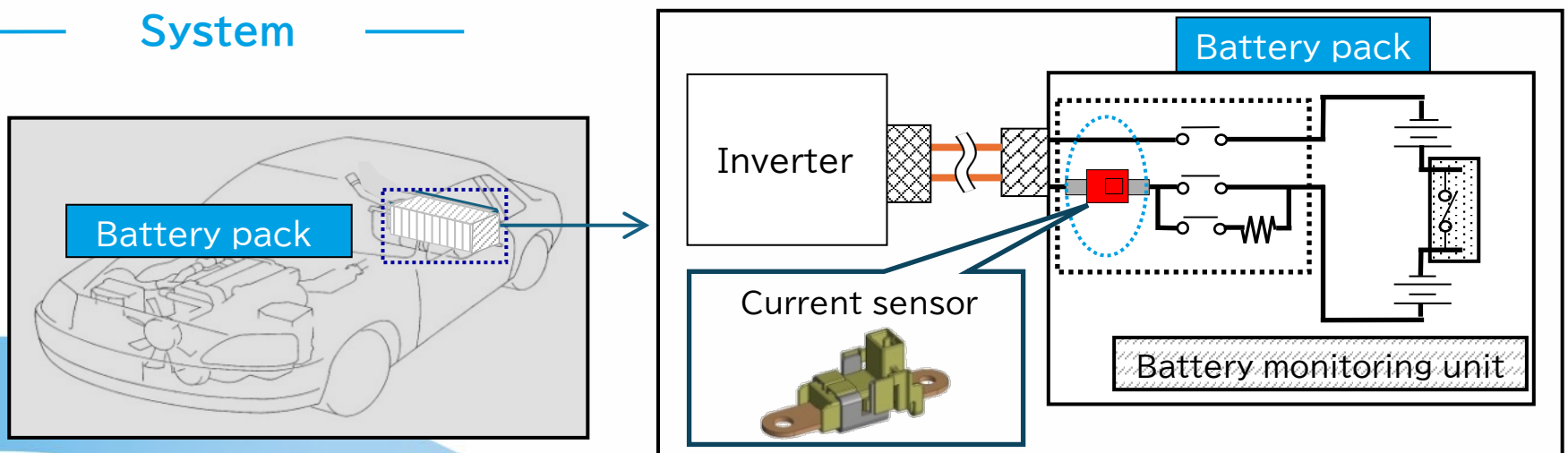
Appearance/Structure







System



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