Advantages and Customer Benefit

In a constantly growing world of comfort and body electronics, higher safety standards and an increasing number of vehicle variants and configurations, a BCM offers several advantages:

- Cost reduction through configuration and variant coding, optimized harness design and shorter development time
- Flexible use of a standard platform hardware in different vehicle classes
- Easy integration of surplus values with existing components (coming home, leaving home, comfort blinking, etc.)
- Compliance with latest safety standards (ISO26262) through diagnosis, redundancy, plausibility control and emergency programs

Body Computer Module (BCM)

- Flexible platform to control comfort and body functions.
- Powerful digital core, large I/O capabilities and modular software design.
- Standard function library
- Easy implementation of new functions and applications.
- Diagnosis and emergency operation modes ensure full ISO26262 compliance.
- BOSCH off-the-shelf production hardware with fully customized software.

Body Electronics Market Growth
Software development highlights
- Model based function development (Matlab/Simulink)® with library for standard functions
- Component support (I/O driver adaption)
- Modular architecture
- Possibility of third party SW integration
- Test, release and delivery to plant
- UDS diagnosis service and error stack

Additional services
- E/E-Architecture design and integration
- Communication bus layout
- Vehicle integration assessment

Technical features

**Mechanical**
- Size [mm]: 200 x 182 x 22
- Weight [grams]: <400
- Operating Temperature: –40°C ... +70°C

**Communication**
- CAN [high-speed]: up to 4
- LIN: up to 6
- RF Transceiver [UHF]: 1 with 315/434 MHz internal and external antenna option

**Ports**
- Input [analog]: 10
- Input [digital]: 40
- Output [low side]: 9 [0.2A ... 5A]
- Output [high side]: 58 [0.2A ... 30A]
- Output [half bridge]: 11 [5A ... 8A]

**Miscellaneous**
- Harness Connector: Available (Tyco)

**Electrical**
- Operating voltage: 9V ... 15V
- Short circuit and reverse battery protection: All inputs and outputs
- Water protected installation: Interior only, IP5K0
- Quiescent current: Typ. 1200 – 2000 µA

Typical Functions and Features
- Interior light
- Exterior light
- Central locking
- Wiper / washer / demister
- Horn and anti-theft
- Seat heater

Add-On possibilities
- Electrical power and energy management
- Start/Stop algorithm
- Intelligent generator control
- Communication gateway and network management
- Additional lighting
- Customer specific function development or third party library integration

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