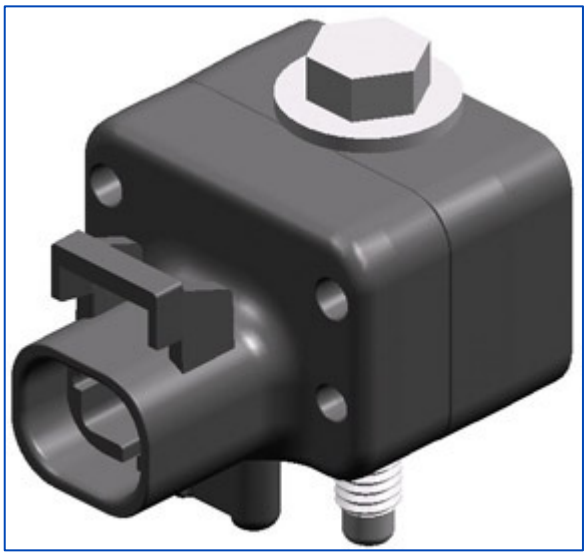
DELPHI

SAFETY & SECURITY SYSTEMS

Delphi Electronic Satellite Sensor ESS-G

Description

The Delphi Electronic Satellite Sensor (ESS-G) is an acceleration-based sensor designed to identify and discriminate crash pulses required for airbag deployment. By transmitting raw acceleration data to the airbag control module, it enables appropriate deployment of the multi-stage airbag to help protect drivers and passengers during frontal or side impacts and help reduce airbag-induced injury in low severity collisions.



Electronic Frontal Satellite Sensor

The ESS-G uses piezo-resistive accelerometer technology to enhance over-range performance. Use of this technology allows the satellite sensor to be mounted in even the most vulnerable mounting locations (door beam, frame rail and bumper) and still provide predictable and accurate results.

Benefits

- Piezo-resistive accelerometer technology allows sensors to be mounted in the inner sheet metal, door beam, b-pillar, rocker panel, and various locations at the front of the vehicle
- Small mechanical footprint provides excellent immunity to the high-g, high-frequency events common in the crush zone
- ±500g sensing range enhances algorithm performance
- Designed for superior performance in over range conditions of high G shocks
- More than 10 years of satellite sensor manufacturing experience
- Exceptionally high quality (2PPM)

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Features

- Standardized two-wire interface to airbag control unit
- Robust design enables mounting such that side event sensing time is under 3 milliseconds
- Selectable 2nd order Bessel filter (200Hz, 400Hz, 800Hz) and message rates (1kHz, 2kHz, 4kHz, 8kHz) provide flexible calibration
- 10-bit A⁄D data conversion provides 1g of resolution
- Calibrations keying (mechanical and⁄or serial data)
- Multiple configurations including vertical- or horizontal-mount packages with or without captured fasteners
- High immunity to abuse events
- Sealed connection system available for environmental protection

Electronic Side Impact Satellite Sensor

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