



Inertial Sensors 4DoF

Precise and reliable measurement

Sensors for electronically controlled safety functions are the eyes, ears and the antenna of a modern-day high-tech vehicle. Intelligent safety systems are inconceivable without them. The Inertial sensor continuously gathers key data on the vehicle's motion, enabling the electronic system to monitor its state. The system measures the angular velocity on each axis (pitch, roll and yaw) as well as the acceleration along each axis (vertical, transverse and longitudinal). The data is sent to other control units via CAN using the standard J1939 protocol.

The Inertial Sensor comprises not only the angular rate and acceleration sensors but also internal processing of all measured motions of the vehicle. The data is processed in a single control unit. Depending on the type of data involved, a range of different actions are then triggered.

Applications

- › Roll angle calculation
- › Traction control, motion control
- › Passenger recognition
- › Inclination detection
- › Inertial navigation System
- › Rollover protection
- › Maintenance support functions
- › Chassis Control

Important Note: The Continental Inertial Sensor is not intended to be used in ESC (Electronic Stability Control) applications.

Technical Specifications

- › Supply voltage: 12 V
- › Operating temperature: - 40 °C to + 85 °C
- › Protection Class: IP6K9 (with mating connector)

Sensor Type	Yaw Rate	Acceleration
Measurement Range	-100 °/s... +100 °/s	-50 m/s ² ... +50 m/s ²
Measurement Direction	z-axis	x/y/z-axis
Resolution	0,25 °/s	0,05 m/s ²

Features

- › Measurement directions in x-, y-, and z-axis
- › Measurement of angular rate (z-axis)
- › Measurement of lateral, longitudinal and vertical acceleration
- › Distribution of measurement signals on CAN
- › SAE J1939
- › Lead free

