



# Sensorbox for Motorcycles

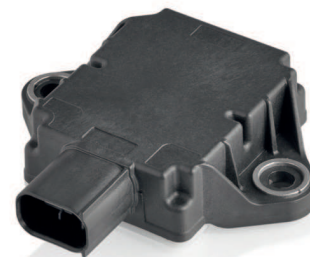
## General Description

The new Sensorbox for Motorcycles is the second generation developed by Continental. The new Sensorbox is based on a modular concept that allows configuration of the measurement range according to customer expectations. The new Sensorbox for Motorcycles comprises up to six degrees of freedom (6DoF). The yaw rate, the roll rate and the pitch rate are measured in a scalable range up to 300°/s.

The acceleration is detected in longitudinal, lateral and vertical direction. And optionally the population of a crash detection sensor is possible. Based on the sensor signals and motorcycle specific characteristics the roll angle of a motorcycle is calculated. The pitch angle can be calculated optionally.

## Key Features

- › Real 6DoF measurement unit
- › Yaw, roll & pitch rate sensing
- › Lateral, longitudinal and vertical acceleration recognition
- › Crash detection (optional)
- › Roll angle calculation
- › Pitch angle calculation (optional)
- › Signal distribution on CAN
- › Lead free



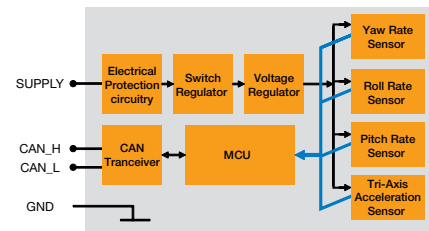
## Applications

Many safety and comfort functions like traction control or (semi-) active suspension systems are already established on various motorcycles. Inertial sensor technology enables and/or optimizes these applications. Intelligent safety and comfort systems are inconceivable without inertial sensor systems like the new Sensorbox for Motorcycles. Innovations in terms of motorcycle safety and comfort are a broad field, and not yet fully exhausted.

- › Traction Control
- › Semi Active Suspension
- › Adaptive/Active Lighting
- › Advanced Braking (e.g. Curve-ABS)
- › Automatic Stability Control
- › Advanced Rider Assistance Systems (e.g. eCall)

## Electrical Characteristics

Parameter	Min.	Max.	Unit
Supply voltage	7	17	V
Supply current		150	mA
Operating temperature	-40	85	°C
Power on setup time		1	s



## Performance Characteristics

Measurement	Roll Rate.	Yaw Rate.	Pitch Rate	Acceleration	Roll Angle
Range	+/- 300°/s	+/- 300°/s	+/- 300°/s	+/- 6gN	+/- 60°
Direction	x-axis	z-axis	y-axis	x/y/z-axis	x-axis

## Mechanical Characteristics

Case material	Housing PBT GF20 / Cover PBT GF15
Weight	48 g
Protection class	IP6K9
Mounting method	Fixed with screws
Connector type	MQS 4 Pin
Height	20 mm
Length	55 mm
Length with connector	74 mm
Width	45 mm
Width with bushings	78 mm

