

Telematics Plug | TEP120

Smart Driving Behavior Determination



BOSCH
Invented for life

The Telematics Plug is a smart sensor device designed for crash detection and/or driving behavior analysis in passenger cars. Together with an App* and services* it can increase the safety of the driver and help to accelerate road side assistance. In addition, it gives insights to improve driving behavior when supported by the App*.

The crash detection functionality may give you peace of mind every time you or your loved ones get behind the wheel. Relax and concentrate on your every-day activities while your partner is on the road with the kids. The Telematics Plug helps to support safe driving when supported by the App*.



FEATURES

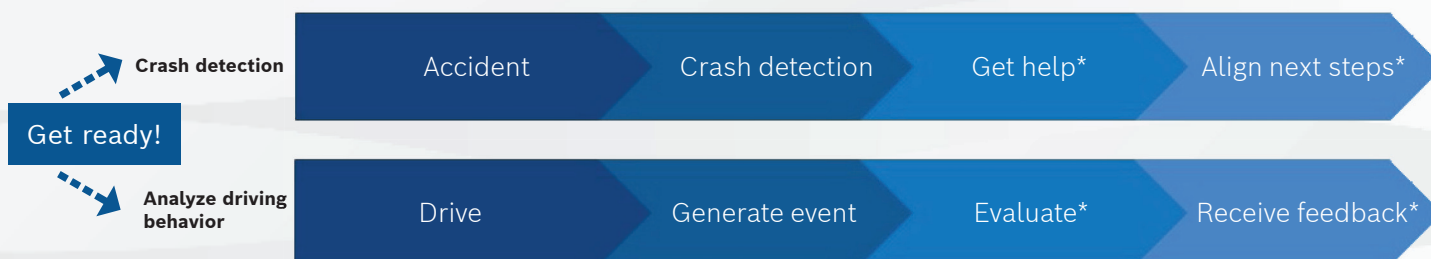
- ▶ Possibility to run the features separately and combined
 - ▶ Crash detection reporting severity of the impact on the vehicle only (impact on passengers cannot be detected and may deviate from impact on vehicle)
 - ▶ Start/Stop and Driving Event detection for acceleration, braking and cornering only
 - ▶ Crash detection and Driving Event detection combined
- ▶ Software development kit available for easy integration into existing Smartphone App*
- ▶ Memory for approx. 10.000 offline events

BENEFITS FOR BUSINESS CUSTOMERS

- ▶ Frequent customer contact and improved customer relationship
- ▶ Enable competitive differentiation and new business models
- ▶ Event detection and scoring for “pay how you drive”, “pay as you drive” and “usage based insurance” offerings applications
- ▶ Helps insurers reduce fraudulent claims
- ▶ Data generation through driving style information or gamification
- ▶ Minimal installation effort and well known application for end customer, interaction through Smartphone App*
- ▶ Low investment for device enables fast penetration of consumer base



HOW IT WORKS



* Not part of product offering

FEATURES

Sensing

Crash detection	Including crash severity
Event detection + event scoring	Acceleration, Braking, Cornering(left + right)
Motion sensor	3 Axis - Accelerometer BMA255
Temperature sensor	Included in motion sensor

Communication

Radio communication	Bluetooth® 4.0 (Smart, Low Energy)
Frequency	2400 - 2483.5 MHz
Max. transmission power	0.47 mW

Charging

USB Charger	1.5 A at 5 V (depending on temperature)
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User interface

LED	Green LED (find the blink codes in the section of 'LED behavior')
User interaction	Provided through Smartphone App*

Mechanical

Dimensions of TEP120	69.6 mm x 33.9 mm x 33.9 mm
Weight	20g
12V car jack	Designed to fit into SAE J563 12 V socket**. No connection to CAN bus.



OPERATIONAL CONDITIONS AND RANGES

USB charging current	max 1.5 A
USB output voltage	max 5 V
Input voltage	8.0 ... 16.0 V
Nominal input voltage	12 V
Accelerometer measurement range	±16 g
Crash heaviness range	1 ... 100
Event scoring range	1 ... 255

Mounting Position for driving behavior analysis

The TEP120 must be mounted along the longitudinal axis (length-wise in the direction of travel) of the passenger car.

Power consumption

Operating mode	Device paired, with load: 9.5 W Device paired, no load: 0.65 W Device unpaired, with load: 9.3 W Device unpaired, without load: 0.44 W
Sleep mode	0.11 W

Operating temperatures

No devices attached to USB port	-30 °C ... +75 °C
Device attached to USB port	Lower limit: -30 °C Upper limit: dependent on outside temperature and current consumption of attached device (see below)

Charging current at 5V depending on temperature: (all values are assumed to be constant, peak rates may differ)	1.2 A at 23 °C w. 12-13 V supply voltage 1.1 A at 23 °C w. 16.5 V supply voltage 1.1 A at 27 °C w. 12-13 V supply voltage
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Operating humidity ranges	see storing conditions
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STORING CONDITIONS

Storing temperatures	Allowed storage conditions (1 year until use): -40 °C ... 10 °C: 7 h 10 °C ... 25 °C: 6132 h 25 °C ... 30 °C: 1752 h 30 °C ... 40 °C: 860 h 40 °C ... 90 °C: 7 h
Temperature range	-30 °C ... 75 °C (over 2 years lifetime)
Humidity	Allowed storage conditions (1 year until use + 2 years lifetime): 30 ... 60 %: 23700 h (90 % of lifetime) ≤ 80 %: 2600 h (10 % of lifetime)

ORDER AND PACKAGING

BOSCH Hardware part number	0273.600.036 (Bosch label)
BOSCH Software Function	Crash detection, driving behavior, crash detection + driving behavior
Delivery lead time	15 working days
Order quantities	112 plugs (box), 1792 (pallet)
Weight of package	4 kg (box); 100 kg (pallet)
Dimension of package	577 mm x 377 mm x 225 mm (box) 1200 mm x 800 mm x 1040 mm (pallet)
Documentation (available languages)	English

Quality and standards

Enclosure protection class	IP X0
Electrical protection class	Class III
ISO	Designed in Germany and manufactured in China according to ISO 9001 and ISO 50001 standard
Technical standards	EN 301489-1, EN 301489-17, EN 301489-34, EN 300328, EN 60950-1, EN 62479
CE	RE-Directive 2014/53/EU
WEEE	WEEE Registration DE-83475985
Certifications	CE (EU), FCC (US), IC (Canada), SRRC (China), IMDA (Singapore), MIC (Japan), ACMA (Australia), Bluetooth® Certification (Kenya; UL International Statement), WPC/ETA (India), CITC (Saudi Arabia), ICASA (South Africa) Ask us for certifications for other countries
Housing testing procedure	Drop test: 10 drops from 100 cm height on granite
Environmental	RoHS, REACH

LED behavior

Off	LED blinking codes (continuous) TEP is off (no functionality available)
On	TEP120 connected & ready, no error set or recognized Mode 1 +2 crash detection active Mode 3 driving behavior active & calibration completed Mode 4 crash detection + driving behavior & calibration for driving behavior completed TEP is ready to connect; no Smartphone currently connected TEP120 is in error mode (see error codes chapter)
3 s off - 1 s on	
0.5 s off - 0.5 s on	

* Not part of product offering

** TEP120 does not fit in Mazda 2, 3, 6, CX3, CX5, MX5 or Opel Corsa D 1.2

GET IN CONTACT WITH US

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