V101B

External Bluetooth TPMS Sensor

Drove West

Vehicle Diagnostics Solutions

Product Specification

HW V1.1 • Released: 2020-06-11

Document Information

Model	V101B	**Product Type**	External Bluetooth TPMS Sensor
Hardware Version	V1.1	**Release Date**	2020-06-11

Overview

V101B is a direct-type external tire pressure monitoring sensor (TPMS) based on Bluetooth Low Energy (BLE 4.0/5.0). Pressure and temperature are measured at the wheel and transmitted wirelessly to a smartphone app for real-time display and alarm notification.

Scope & System

This specification applies to the V101B external Bluetooth TPMS sensor. The system uses a direct measurement method — pressure and temperature are measured at the wheel and transmitted to a smartphone. Alarm logic and thresholds are configured in the mobile application.

Physical Specifications

Dimensions: ~21.8 × 18.4 mm
Weight: 8 g ± 1 g (external)
Battery: 140 mAh (3V) | IP67
Chip: DA14531 / ARM M0

BLE 4.0/5.0
2.4 GHz wireless; broadcast TPMS1-4_XXXXXX

100-1300 kPa
Direct pressure measurement; ±10 kPa accuracy

Temp: ±3 °C
Real-time tire temperature monitoring

Ultra-Low Power
≤1.4-1.8 μA standby; 140 mAh; 3-5 yr life

IP67 / 95% RH
Water & dust protected for daily driving

TPMSII App
iOS & Android; configurable alarms & thresholds

Electrical & Environmental Specifications

Core / MCU	ARM M0 / DA14531	**Bluetooth name**	TPMS1-4_XXXXXX
Communication	Bluetooth 4.0/5.0 (BLE)	**Operating voltage**	3 V
Standby current	≤ 1.4-1.8 μA	**RF frequency**	2.4 GHz
TX power	0 dBm (max)	**Response time**	≤ 5 s
Display method	Mobile APP	**Ingress protection**	IP67
Operating humidity	95% RH (max)	**Pressure range**	100-1300 kPa
Pressure accuracy	± 10 kPa	**Temperature accuracy**	± 3 °C
Operating temp.	−30 °C to +70 °C	**Storage temp.**	−30 °C to +70 °C
Battery capacity	140 mAh (external)	**Battery life**	3-5 years (external)
Sensor weight	8 g ± 1 g (external)	**Dimensions**	~21.8 × 18.4 mm

Notes

- This TPMS solution is a direct measurement system. Pressure and temperature are measured at the wheel and transmitted to a smartphone.
- Alarm logic and thresholds are configured in the mobile application.

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