PBN-1515 Sensor Specifications

Catalogue

1. Product overview

1. Product name and model number

Pictures	Name	Model
	Built-in sensor	**PBN-1515**

2. Product introduction

This product belongs to a part of the automobile tire pressure monitoring system and is installed in the automobile tire. It can accurately measure the pressure and temperature inside the tire and transmit it to the central monitor through wireless radio frequency. The driver obtains the pressure and temperature values of each tire through the central monitor display.

2. Product functional characteristics

1. The high-frequency transmission mode uses FSK modulation signal, and the low-frequency transmission mode uses ASK modulation signal

2. Automotive-grade materials, long life, high stability and strong anti-interference ability

3. Air pressure and temperature are measured and monitored at the same time, with self-inspection and tire leakage monitoring functions

4. Adopt IP67 protection level

5. Light weight and small size

3. Product parameters and specifications

Serial number	Project	Technical parameters
1	Battery model	CR2032 (220 mAh)
2	Radio frequency	315.0MHz ± 30 KHz
3	Standby current	< 0.7 uA
4	Emission current	< 10mA
5	High frequency transmit power	< 8 dbm (50 Ω)
6	High frequency modulation method	FSK
7	Low frequency receiving frequency	125 KHz ± 5 KHz
8	Low frequency demodulation method	ASK
9	Pressure measurement range	0-8 Bar
10	Pressure resolution	1.572 KPa
11	Pressure measurement accuracy	± 0. 1 bar (0 ℃ ~ 70 ℃) ± 0. 24 bar (-20 ℃ ~ 85 ℃)
12	Temperature measurement range	-20℃~85℃
13	Temperature resolution	1℃
14	Temperature measurement accuracy	±3℃（0℃~70℃）
15	Operating temperature range	-20℃~85℃
16	Storage Temperature Range	-20 ℃ ~ 85 ℃ (Recommended storage at room temperature)
17	Level of protection	IP67
18	Battery life	More than 1 year
19	Weight	34.5 g ± 1 g

1. Product weight

Project	Graphical representation	Weight (unit: g)
Built-in sensor		17 g ± 1 g

4. Installation instructions and diagrams

A. Put your caron the lift platform andset the carlifted to the appropriate height. Use wind gun spin each tire toremove the screws, andremove the tire anddo someremark. (As shownbelow)

B. Remove the tire from the valve core and let the tire be placed on the workbenchof the tire removal machine and peel the tire off the wheel. (As show below)

C. Remove the original valve from the removed hub and clean the valve and remove the sensor. Specifythe position according to the sensor label(forexample, the left front wheel can only correspond to the left front wheelsensor, left front tire Is not installed right front wheelsensor), and th e sensor installed in the original to remove thevalve position, andthen use a special sleeve to tighten thesensor, and fixedscrews. (As shown
below)

D. Coated the edge of tire with lubricant and then put the tire back to the wheel hub which fixeda sensoralready. According to your tire standard pressure spec to pump up thetyres. Then put the tire on the balancemachine table to do wheel alignment.(As shownbelow)

E. Remove the tires from the balance machine table and reload the t ires into thecar. Pick out the warning lable andstick to the positionwhere the sensor i s installedon the wheel hub (Tips: carefully removing the tire and the sensor inside). (As show below)

F. Please repeat the above steps, to make sure all set sensor already installed.

Precautions:

- Each sensor is marked with the location of the tire to which it belongs, and should be accurately installed on the corresponding tire

- After the sensor is installed, please check whether there is any air leakage in the tire. If necessary, apply soapy water to the air nozzle to check and confirm

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.
If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
-- Reorient or relocate the receiving antenna.
-- Increase the separation between the equipment and receiver.
-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-- Consult the dealer or an experienced radio/TV technician for help.

Warning: changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment

Radiation Exposure Statement
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.
This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.