

Product specification

Product Name: Tire pressure sensor

Product model: C10G

Current version: V01

Effective date: October 23, 2018

Version History

| version | date | Version Updated Record | drawn | review | approve |
|---------|------------|------------------------|-------|--------|---------|
| V01 | 2018/10/23 | newly added | | | |
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I. Product Overview

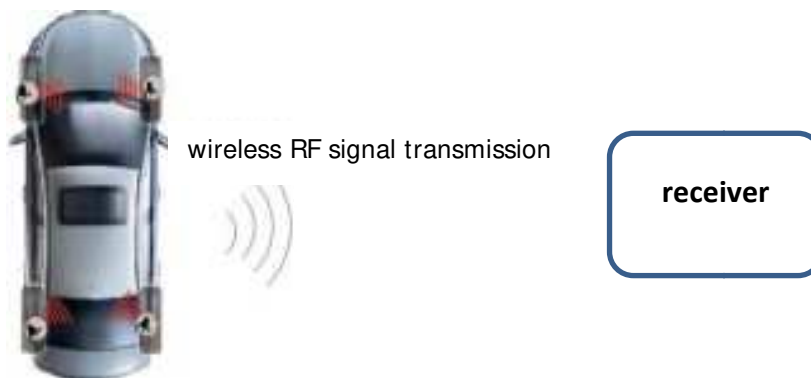
1) Product images



2) Product Introduction

This system is used for real-time detection of tire pressure and temperature, consisting of four sensors and a receiver. After collecting pressure and temperature data inside the tire, the sensor sends it to the receiver via wireless radio frequency, which receives and processes it before displaying it on the display screen or instrument panel. When the pressure or temperature inside the tire exceeds or falls below the preset alarm threshold, the receiver or instrument panel will automatically complete the corresponding alarm to remind the user to pay attention to the tire status. Through the operation of this system, the comfort of the vehicle can be improved, tire blowouts can be prevented, fuel consumption can be reduced, tire wear can be reduced, and power performance can be indirectly improved.

3) System Block Diagram



4) Product features

- ◆ The high-frequency transmission method adopts FSK modulation signal, and the low-frequency adopts ASK modulation signal;

- ◆ Fully imported vehicle grade materials, with long service life, high stability, and strong anti-interference ability;
- ◆ Simultaneously measuring and monitoring air pressure and temperature, with self checking and tire leak monitoring functions;
- ◆ Adopting IP67 protection level;
- ◆ Lightweight and small in size.

5) Product features

- ◆ Low pressure alarm function
- ◆ High pressure alarm function
- ◆ High temperature alarm function
- ◆ Leakage alarm function
- ◆ Low battery alarm function
- ◆ ID learning function
- ◆ High pressure, low pressure, and high temperature threshold setting function
- ◆ Tire exchange function

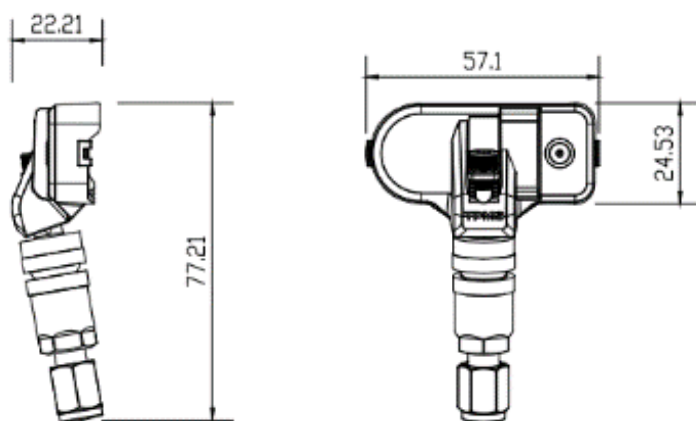
II. Product technical parameters and specifications

1) Technical parameters


| No. | item | technical parameters |
|-----|-----------------------------------|----------------------|
| 1 | battery model | CR2032 |
| 2 | RF frequency | 433.92MHz±38KHz |
| 3 | Standby current | ≤0.3uA |
| 4 | Emission current | ≤ 10mA |
| 5 | High frequency transmission power | > -7.5dbm (50Ω) |
| 6 | High frequency modulation method | FSK |
| 7 | Low frequency receiving frequency | 125KHz±5KHz |
| 8 | Low frequency demodulation method | ASK |

| | | |
|----|----------------------------------|---|
| 9 | Pressure measurement range | 0~8 Bar |
| 10 | Pressure resolution | 1.572KPa |
| 11 | Pressure measurement accuracy | $\pm 0.05\text{bar}$ ($0^{\circ}\text{C}\sim 70^{\circ}\text{C}$) |
| | | $\pm 0.1\text{bar}$ ($-40^{\circ}\text{C}\sim 125^{\circ}\text{C}$) |
| 12 | Temperature measurement range | $-40^{\circ}\text{C}\sim 125^{\circ}\text{C}$ |
| 13 | Temperature resolution | 1°C |
| 14 | Temperature measurement accuracy | $\pm 2^{\circ}\text{C}$ ($0^{\circ}\text{C}\sim 70^{\circ}\text{C}$) |
| | | $\pm 3^{\circ}\text{C}$ ($-40^{\circ}\text{C}\sim 125^{\circ}\text{C}$) |
| 15 | Working temperature range | $-40^{\circ}\text{C}\sim 125^{\circ}\text{C}$ |
| 16 | Storage temperature range | $-40^{\circ}\text{C}\sim 125^{\circ}\text{C}$ (Suggest storing at room temperature) |
| 17 | Protection level | IP67 |
| 18 | Battery lifespan | Over 5 years |

2) Product size specifications (unit: mm)



3) Individual product weight

| item | picture | weight (unit: g) |
|--------|---|------------------|
| sensor |  | 37.7±5 |

III. Installation instructions

Installation process diagram of built-in sensor



① Remove the tire ② Cut off the original valve of the car ③ Clean the valve hole ④ Installing sensors



⑤ Lock in place with tools ⑥ Installation diagram ⑦ Tire dynamic balance ⑧ Replacing the tire

Notes:

- The position of the sensor can be installed freely without distinguishing the tire position;
- After the installation of the sensor is completed, please check if there is any air leakage in the tire, and if necessary, apply soap and water to the air nozzle to check and confirm.

FCC Statement

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

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

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.