

Mobile machinery shop TPMS

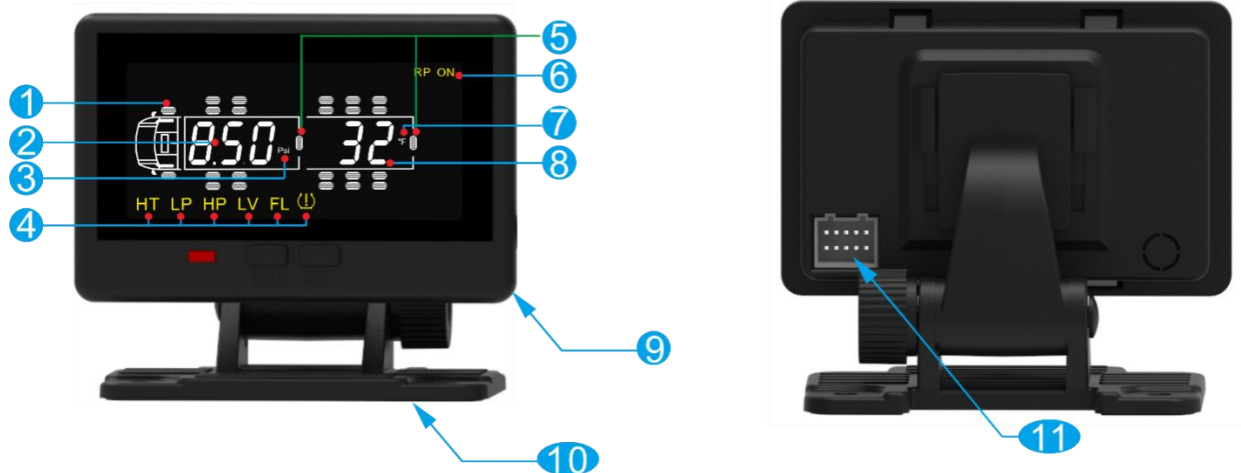
I. Overall feature description:

1. Adapt to harsh environmental requirements: waterproof and dustproof grade: IP67, sensor working temperature range: -40~ +125 °C.
2. Longer life design, 24-hour working conditions: 6.1 years;
3. Modular design: add GP2020 module to realize IOT application and remote upgrade function.

II. Introduction to each module:

1 Display

1.1 Display interface definition diagram (including external interface indication)



1. Tire position
2. Minimum pressure of all tires
3. Tire pressure in PSI
4. Tire abnormality mark
5. Whether the repeater is connected
6. Trailer connected
7. Tire temperature unit
8. Maximum temperature in all tires
9. Display
10. Display bracket
11. CAN, RS485 communication interface, power interface

1.2 Characteristic

- 1) It supports two ways of installation :embedding and bracket installation;
- 2) It is connected with peripherals and supports two communication modes of

CAN and 485. It can be connected with GPS and other equipment;

- 3) With the help of handheld management device, it can support: one click batch learning sensor ID;
- 4) The firmware and software of the equipment can be upgraded through CAN and RS485 interfaces.

1.3 Performance parameter

item	name	technical parameter
1	input voltage	DC8V~36v
2	Standby working current	< 15 mA
3	Operating current	< 50 mA
4	Wireless communication center frequency	433.92 MHz
5	Wireless reception sensitivity	< -108 dBm
6	Wireless demodulation mode	FSK

2 Repeater

2.1 Product picture



1. Fixed hole(diameter 8mm)

2. Fixed hole(diameter 8mm)

3. Power interface

2.2 Characteristic

- 1) It is installed on the vehicle chassis and powered by on-board power supply;
- 2) Fireproof materials are adopted, the mechanical strength of the shell is strengthened, and IP67 waterproof sealing design is adopted;
- 3) It can be fixed quickly when used with the bracket designed by our company;

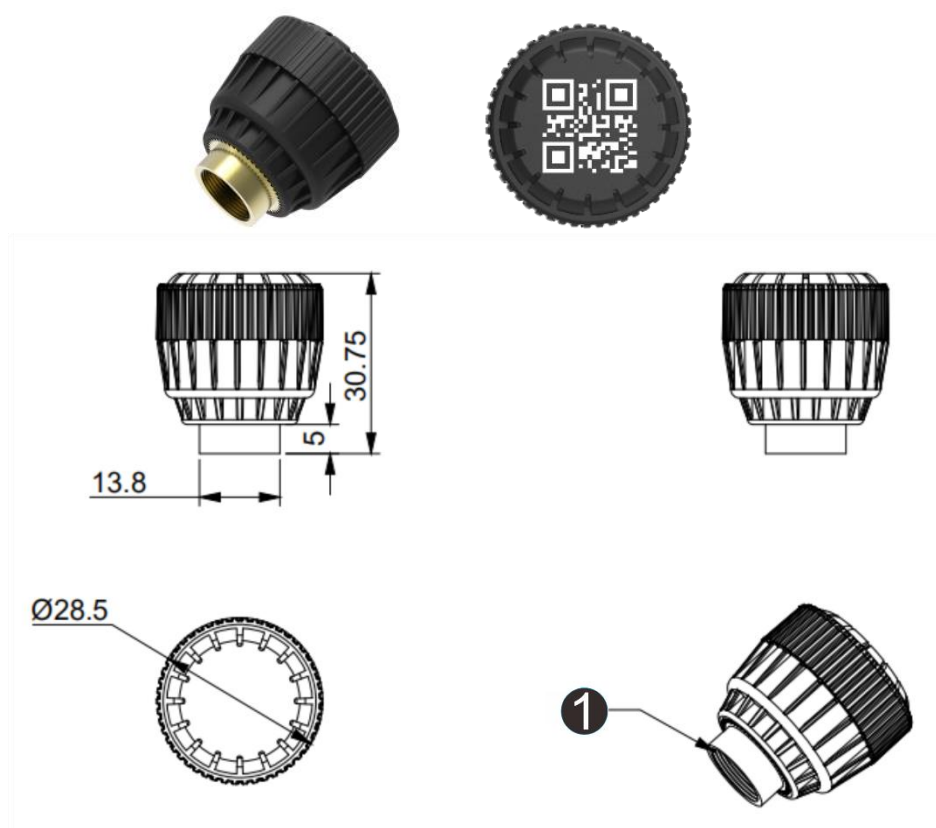
- 4) Internal integration of high-frequency transmission and reception functions, high-sensitivity data reception;
- 5) Transfer data to ensure no blind spot transmission of sensor signal.

2.3 Performance parameter

item	name	technical parameters
1	working voltage	DC 8~36V
2	RF signal transmitting center frequency	433.92 MHz
3	Modulation mode of RF transmitting signal	FSK
4	Coding method of RF transmitting signal	Manchester
5	Baud rate of RF transmission signal	9.6Kbps
6	RF signal transmitting power	≤ 10 dbm
7	RF signal receiving sensitivity	≥ -105 dbm
8	Maximum working current	< 30 mA
9	RF signal receiving center frequency	433.92 MHz
10	working temperature	$-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$
11	Waterproof grade	IP67
12	Fire rating	94V0
13	connector model on wire	TE 1-1718646-1

3 Sensor

3.1 Product picture



Note ❶: the material is brass, which is suitable for 12V1 valve

3.2 Characteristic

- 1) Adapt to 12V1 valve;
- 2) Design life: 6.1 years (24 hours working);
- 3) IP67 protection design; Using rubber + polyurethane potting process, it can have perfect sealing effect in - 40 - + 125 °C and other harsh environments;

3.3 Performance parameter

item	name	technical parameters
1	Battery model	CR 2050
2	center frequency	433.92 MHz
3	Standby current	< 0.7 uA
4	Emission current	< 10 mA
5	High frequency transmitting power	> -11dbm (50Ω)
6	High frequency modulation	FSK
7	Low frequency receiving frequency	125 KHz±5 KHz
8	Low frequency demodulation mode	ASK
9	Pressure measurement range	0-14bar(0~203PSI)
10	Pressure resolution	±2.75 KPa
11	Pressure measurement accuracy	±7 KPa(0°C~70°C)
		±15 KPa (-40°C~125°C)
12	Temperature measurement range	-40°C~125°C
13	Temperature resolution	±1°C
14	Temperature measurement accuracy	±2°C(-20°C~70°C)
		±3°C(-40°C~125°C)
15	Operating temperature range	-40°C~125°C
16	Storage temperature range	recommended to store at room temperature
17	Protection level	IP67
18	Fire rating	94V0

4 Tools

4.1 Handheld management tools



4.2 Installation kit



5 Complete installation harness solution



III. Product installation layout

Provided by customers.