
Wireless NO Sensor

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Wireless Sensor Network Based on LoRa Technology



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Overview

The R718PA2 is a wireless communication device that detects the NO content in ambient air. R718PA2 can detect the concentration of NO in the air. The main unit and NO sensor are connected via RS485 interface, and the detected data is transmitted to other devices through the wireless network. It adopts the wireless communication method conforming to the LoRa™ protocol standard.

Main characteristics

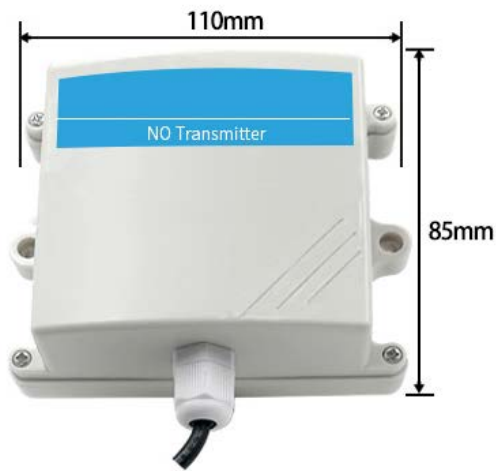
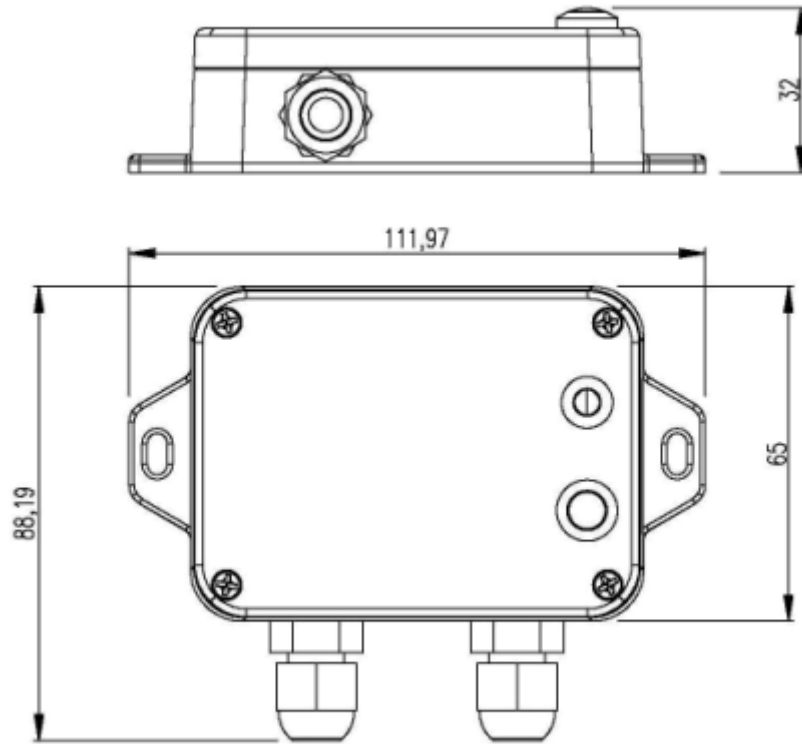
- Adopt SX1276 wireless communication module
- DC 12V adapter power supply
- Main Unit protection class IP65
- The base is equipped with a magnet that can be attached to the iron object
- RS485 communication
- Compatible with LoRaWAN™ Class A
- Frequency hopping spread spectrum technology
- Configuration parameters can be configured through third-party soft platforms
- Data can be read and alerts can be set via SMS text and email (optional)
- Applicable to third-party platforms: Actility / ThingPark, TTN, MyDevices / Cayenne

Application scenario

- NO concentration detection

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Dimensions



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Model	D(mm)	B(mm)	D2(mm)	L(mm)	L1(mm)	L2(mm)
M12	11.8	17.8	19.5	30.3	8	5

Electrical

Power Supply	DC 12V adapter power supply
Working Current	50mA (external sensor)

* Specific electrical characteristics will vary depending on the power supply voltage

NO Sensor

NO Measurement Range	0- 2000ppm
NO Measurement Method	Electrochemical sensors
NO Measurement Accuracy	<± reading 2 % (@25°C)
NO Measurement Resolution	< 1 ppm
Response Time	< 60s
Service Life	In the air > 2 years

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Frequency Characteristics

Frequency Range	863MHz-928MHz 470MHz-510MHz
Power Output	US915 20dbm; AS923 16dbm; AU915 20dbm; CN470 19.15dbm; EU868 16dbm; KR920 14dbm; IN865 20dbm;
Receiving Sensitivity	-136dBm (LoRa, Spreading Factor=12, Bit Rate = 293bps); -121 dBm (FSK, Frequency deviation=5kHz, Bit Rate=1.2kbps)
Antenna Type	Built-in antenna
Communication Distance	Up to 10 km (visible linear obstacle-free transmission distance, actual transmission distance depends on the environment)
Data Transfer Rate	0.3kbps ~ 50kbps (LoRa) 1.2kbps ~ 300kbps (FSK)
Modulation	LoRa / FSK (Note: choose one of them)
Supportable LoRaWAN Band	EU863-870,US902-928,AU915-928,KR920-923,AS923-1,AS923-2,AS923-3,IN865-867,CN470-510

Physical characteristics

Dimension	Main part - L: 112 mm*W: 88.19 mm*H: 32 mm
Ambient Temperature Range	- 20 °C to 55 °C
Main Unit Weight	About 160g
Ambient Humidity Range	<90% RH (no condense)
Storage Temperature Range	- 40 °C ~ 85 °C