Wireless CO Detector

Wireless Sensor Network Based on LoRa Technology

RA02C
Data Sheet

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Wireless CO Detector

Introduction

RA02C is a wireless control alarm device for smart home and high reliability. It adopts wireless communication method conforming to the LoRaWAN protocol standard.

RA02C is a device for the detection of harmful gases in the home environment. It is suitable for the detection of CO (carbon monoxide). When the concentration exceeds the preset value, it will trigger the alarm and fully comply with the LoRaWAN protocol standard.
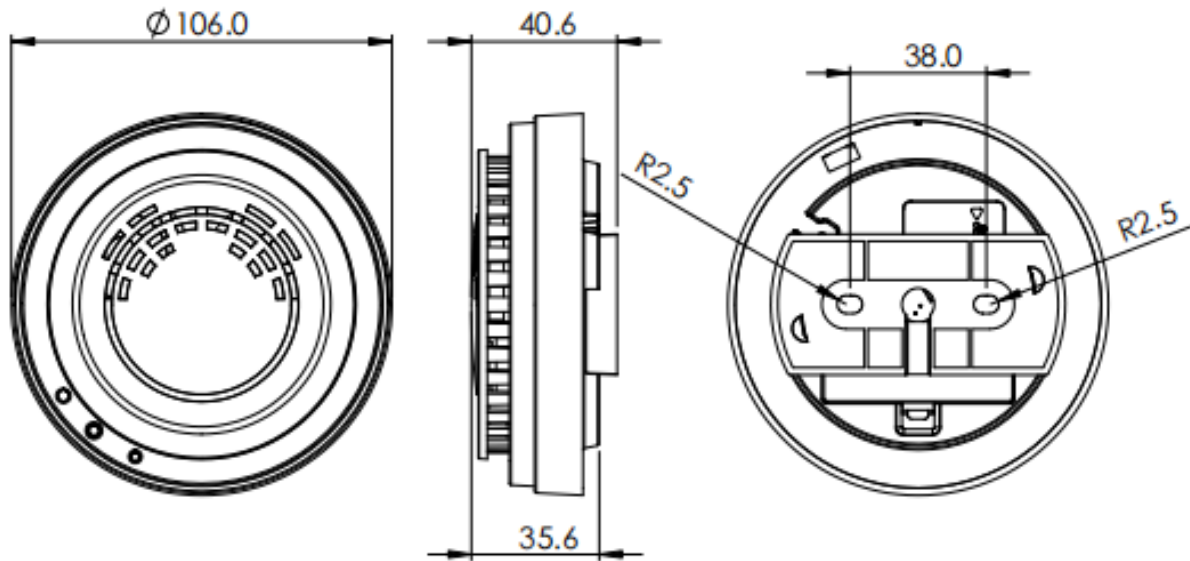
Main Characteristics

- Compatible with LoRaWAN™ protocol
- 2*AAA alkaline battery power supply
- LoRaWAN™ Class A compatible
- Frequency Hopping Spread Spectrum (FHSS)
- Available third-party platform: Actility/ThingPark, TTN, MyDevices/Cayenne

Applications

- Carbon Monoxide detection
- Carbon Monoxide alarm products for families, apartments, schools, hotels, etc.

Wireless CO Detector

Dimensions

Electrical Characteristics

Power Input	2*AAA alkaline battery
Standby Current	18uA/3VDC
Average Operating Current	70uA/3VDC
Current While alarming	20mA/3VDC
Alarm Sound Intensity	85dBm at 3m
CO Detection Concentration Range	0 ~ 1000ppm

Frequency

Frequency Range	863MHz-928MHz 470MHz-510MHz
TX Power	US915 20dbm; AS923 16dbm; AU915 20dbm; CN470 19.15dbm; EU868 16dbm; KR920 14dbm; IN865 20dbm;
Rx Sensitivity	-136dBm (LoRa，Spreading Factor=12，Bit Rate=293bps) -121dBm (FSK,Frequency deviation=5kHz, Bit Rate=1.2kbps)

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Antenna Type	Build-in antenna
Communication Range	Up to 10 km, the actual transmission distance depends on the environment.
Data Transfer Rate	LoRa: 0.3kbps ~ 50kbps FSK: 1.2kbps ~ 300kbps
Spread Technique	LoRa / FSK
Available Frequency	EU863-870,US902-928,AU915-928,KR920-923,AS923-1,AS923-2, AS923-3,IN865-867,CN470-510 (Note: The frequency band is optional and needs to be configured before shipment)

Physical

Dimension	D: 106 mm , H: 36 mm
Operating Temperature Range	-20℃ ~ 55℃
Operating Humidity Range	< 90%RH (No condensation)
Storage Temperature range	-40℃ ~ 85℃