

Wireless CO Detector

Wireless Sensor Network Based on LoRa Technology



RA02C Data Sheet

Copyright©Netvox Technology Co., Ltd.

This document contains proprietary technical information which is the property of NETVOX Technology and is issued in strict confidential and shall not be disclosed to others parties in whole or in parts without written permission of NETVOX Technology.

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)
- Third-Party online wireless sensor monitoring and notification system to configure sensors, view data and set alerts via SMS text and email (optional)
- 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

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)
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)

Wireless CO Detector

Physical

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