

## Wireless H2S Sensor

### Wireless Sensor Network Based on LoRa Technology

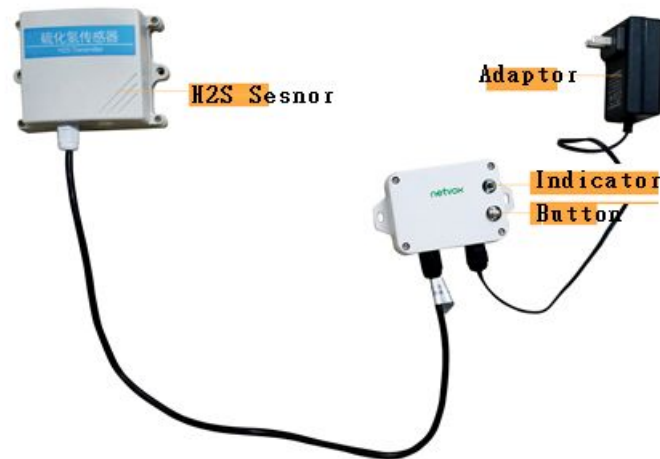


Figure 1 R718PA4 Appearance (subject to the actual object)

### 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.

The specifications are subjected to change without prior notice.

## History

<b>Version</b>	<b>Date</b>	<b>Note</b>
0.1	2019-06-25	Initial Release

### Notes:

Hardware Version  
61R718p6801V0.2

## Overview

The R718PA4 is a wireless communication device that detects H2S content in ambient air. R718PA4 detectable air H2S concentration levels. The main unit and H2S sensor are connected with RS485 interface, and the detected data to the other equipment shown via a wireless network which employs compliance Lora (™) wireless communication protocol standards.

## Main characteristics

- Adopt SX1276 wireless communication module
- DC 12V adapter power supply
- Protection class IP65
- The base is equipped with a magnet that can be attached to the iron object.
- RS485 communication
- Compatible with LoRaWANTM Class A
- Frequency hopping spread spectrum technology
- Configuration parameters can be configured through third-party software platforms and 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

H2S concentration detection

## Dimensions

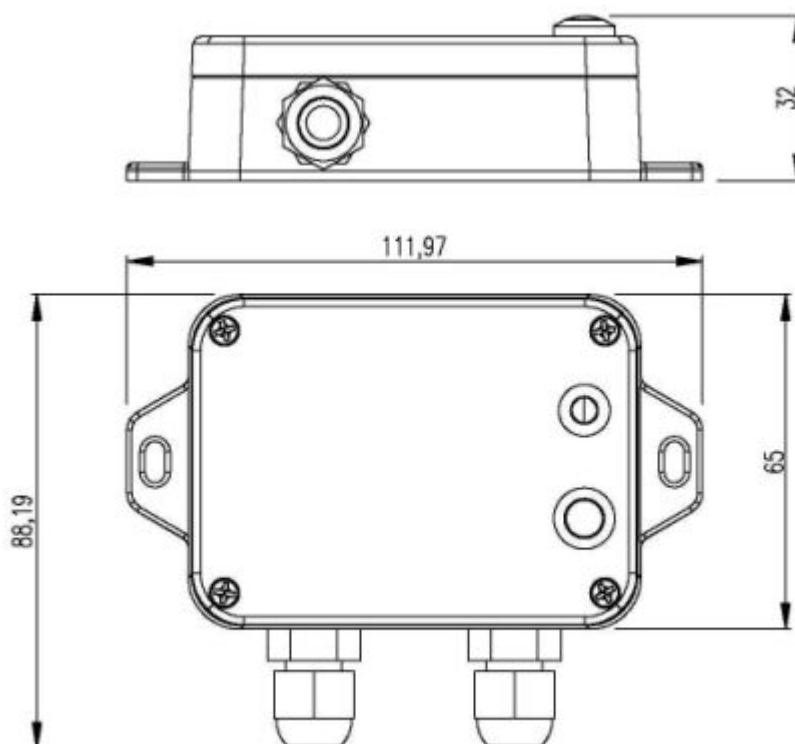


Figure 2 Main Unit Housing Size

Main unit case size: 112 mm x 88.19 mm x 32 mm

## Electrical characteristics

Power supply	DC 12V adapter power supply
Working current	60mA (external sensor)

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

## H2S sensor parameters

Power supply	+ 10V-+24 VDC
H2S measurement range	0- 100 ppm
H2S measurement method	Electrochemical sensors
H2S accuracy	<= 2% maximum range
Response time	<= 30 seconds
H2S resolution	<0.1ppm
Service life	In air >2 years
Communication port	RS485

## Radio frequency characteristics

Frequency range	863MHz-928MHz 470MHz-510MHz
Power output	19 dBm ±1dBm
Receiving sensitivity	-136dB (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 to 50k bps
Modulation system mode	LoRa/F SK (Note: You can choose one of them)
Supportable LoRaWAN band	EU863- 8 70 , US 9 02-928 , AU915-928 , KR920-923 , AS 923 , CN470-510 (Note: The frequency band is optional and needs to be configured before shipment)

## Physical characteristics

Main body size	L: 112 mm*W: 88.19 mm*H: 32 mm,
Ambient temperature range	- 20 °C to 55 °C
Body weight	About 160g
Ambient humidity range	<90% RH (non-condensing)
Storage temperature range	- 4 0 °C ~ 85 °C