Netvox^{**} Wireless 0-10V ADC Sampling Interface

Wireless 0-10V ADC Sampling Interface

Wireless Sensor Network Based on LoRa Technology



Data Sheet

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Wireless 0-10V ADC Sampling Interface

Introduction

This device can be connected with ADC sampling interface device.

The black wire is the ground wire and red one is the ADC sampling interface wire. The ADC sampling interface voltage range is 0-10V, which adopts SX1276 wireless communication module.

Main Characteristic

- Adopt SX1276 wireless communication module
- 2 x ER14505 batteries AA size (3.6V /section) in parallel
- ADC sampling interface
- The base is attached with a magnet that can be attached to a ferromagnetic material object
- IP Rating: IP65

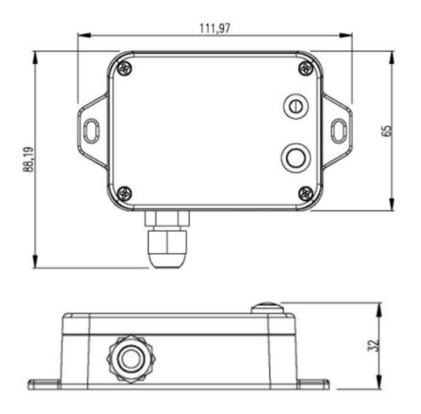
Application

• ADC sampling interface device (0-10V)



Wireless 0-10V ADC Sampling Interface

Dimension



Electric

Input Power	2 pcs ER14505 lithium batteries in parallel (3.6V 2400mah/ section)
Battery Life	5 years (Condition: ambient temperature 25 °C, 15min report once, txpower = 20dbm, LoRa spreading factor SF = 10)
Standby Current	22uA
Wakeup Current	6.3mA/ 3.3V
Transmitting Current (max)	120mA/ 3.3V
Receiving Current (max)	11mA/ 3.3V
Low Voltage Threshold	3.2V

*The specific electrical characteristics will vary according to the power supply voltage.

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Frequency

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

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Wireless 0-10V ADC Sampling Interface

ADC Sampling Characteristics

ADC Sampling Voltage Range	0-10V
Digit	12 digits
ADC Conversion Rate	1.14 Msps
External Cable Length	1m

Physical

Dimension	L: 112 mm x W: 65 mm x H: 32 mm
Weight	141g
Environment Humidity Range	<90 %RH (No condensation)
Operating Temperature	-20°C to 55 °C
Storage Temperature	-40°C to 85 °C