
Wireless 1-Phase Current Meter with 1 x 75A Clamp-On CT

Wireless 1-Phase Current Meter with 1 x 75A Clamp-On CT R718N1 Data Sheet

Wireless Sensor Network Based on LoRa Technology



R718N17

Copyright©Netvox Technology Co., Ltd.

This document contains proprietary technical information which is the property of NETVOX Technology. It shall be maintained in strict confidence and shall not be disclosed to other parties, in whole or in part, without written permission of NETVOX Technology.

The specifications are subject to change without prior notice.

Wireless 1-Phase Current Meter with 1 x 75A Clamp-On CT

General Description

The NETVOX wireless single-phase current detector is used to detect single-phase electrical input current. The device is compatible with the LoRaWAN protocol, and integrates a chip module that conforms to the LoRaWAN wireless protocol to display the collected data in the gateway.

The device is powered by battery and obtains the load AC current value through the current transformer. The device adopts the split-core current transformer, which can be conveniently connected to the measuring device.

Working Principle

This device is connected to a current transformer. The current transformer is an instrument that converts the primary side large current into a secondary side small current according to the principle of electromagnetic induction, and the primary side large current is isolated from the secondary side small current, and the secondary side of the device is monitored. Low current, battery powered, to ensure safe use of the device.

Example Applications

- Indoor current detecting devices for homes, hotels, office buildings, shopping malls, etc.
- Smart city
- Thermal system equipment

Features of NETVOX Sensors

- LoRaWAN™ Class A compatible
- Apply SX1276 wireless communication module
- 2 ER14505 battery AA SIZE (3.6V / section) parallel power supply
- Protection level IP30
- Frequency Hopping Spread Spectrum (FHSS)
- Improved interference immunity
- Improved power management for longer battery life
- Battery Life*2:

Please refer to web: http://www.netvox.com.tw/electric/electric_calc.html

At this website, users can find battery life time for varier models at different configurations.

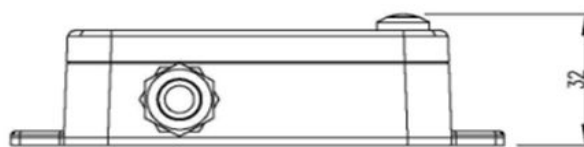
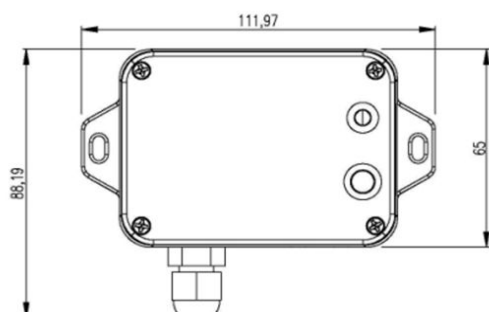
- Third-Party online wireless sensor monitoring and notification system to configure sensors, view data and set alerts via SMS text and email (optional)
- Available third-party platform: Actility/ThingPark, TTN, MyDevices/Cayenne
- R718X series carry magnets which can be attached to ferromagnetic materials and objects

*1. Actual range may vary depending on environment.

*2. Battery life is determined by sensor reporting frequency and other variables

Wireless 1-Phase Current Meter with 1 x 75A Clamp-On CT

Technical Specifications (Main Part)



(Uni. mm)

Electric

Input Power	2 x 3.6V ER14505 lithium batteries parallel power supply (3.6V2400mah/section)
Sleeping Current	25uA
Wake up Current	7mA
Receiving Current (max)	Receiving: 11mA @3.3V Transmitting : 127mA @3.3V
Battery Voltage Measurement Accuracy	±0.1V
Low Voltage Threshold	3.2V
Current Measurement Accuracy	<+-1%
Current measurement Accuracy Range	100mA to 75A (depending on the current transformer configuration)
Resolution	1mA

Frequency

* Specific electrical characteristics may vary depending on the power supply voltage.

Frequency Range	863MHz-928MHz 470MHz-510MHz
TX Power	19dBm±1dBm
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	0.3kbps~50kbps
Spread Technique	LoRa/FSK
Available Frequency	EU863-870, US902-928, AU915-928, KR920-923, AS923, CN470-510 Configured before shipment

Wireless 1-Phase Current Meter with 1 x 75A Clamp-On CT**Current Transformer**

Rated Input Current	30A, 50Hz~60Hz
Rated Output Current	10mA
Saturation Current	≥75A
Ratio	3000:1
Load Resistance	10 Ω
Accuracy Level	1%
Isolation Withstand Voltage	3000V
Housing Material	Flame Retardant Grade 94-V0 UL Material
Environmentally Friendly	In line with ROHS
Working Temperature	-40° C~+85° C

Physical

Dimension	Main Part: L:112mm*W:88.19mm*H:32mm Sensor : 42.5*27.5*25mm
Weight	Main Part: 141g Sensor : 49.6g
External Sensor Length	900mm
Environment Temperature Range	-20°C ~ 55°C
Environment Humidity Range	<90% RH (No condensation)
Storage Temperature Range	-40°C~+85°C
Mounting	Screw/magnet

Contact:**NETVOX TECHNOLOGY CO., LTD.****TEL: 886-6-2617641****FAX: 886-6-2656120****E-mail: sales@netvox.com.tw****WEB: www.netvox.com.tw****NETVOX TECHNOLOGY CO., LTD (XIAMEN)****TEL: 86-592-5717188****FAX: 86-592-5717180****E-mail: dyx@netvox.com.cn****WEB: www.netvox.com.cn**