

# Wireless Vibration and temperature sensor operating manual



Model: RH605

Anhui Ronds Science & Technology Incorporated Company

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## Wireless Vibration and temperature sensor operating manual

### 一、 Introduction:

Wireless monitor is an important equipment is let know launch for business, can replace artificial precision tally of a kind of on-line monitoring solution, using the latest wireless vibration monitoring technology, monitoring equipment vibration signal, and through the capacity to know radio station RH605 to deliver data to the database server, to avoid a great deal of field wiring work and field implementation workload small, easy maintenance, and greatly reduces the dependence on staff and enterprise to the difficulty of the speed monitoring of dispersion equipment, suitable for enterprises to promote the common use. Wireless monitors RH605 have intrinsically safe and explosion-proof functions and meet GB 3836.1-2010 explosive environment part 1: general requirements for equipment and GB 3836.4-2010 explosive environment part 4: equipment protected by intrinsically safe "I";Explosion-proof marks for Exia II CT4Ga.

### 二、 Functional features and technical indicators

- ✧ RH605: It's has A three-axis MEMS chip, which can collect common vibration data in three directions while collecting high-frequency vibration in one direction.

Software function data: Temperature acquisition and X, Y, Z three directions of vibration, frequency of the vibration analysis of piezoelectric: 500 hz and 1000 hz and 2000 hz and 5000 hz and 10000 hz and 20000 hz.MEMS: 500 hz and 1000 hz.

- Functional features
- Wireless transmission, leaving out a lot of wiring work such as signal, power supply and network
- The transmission frequency of 2.4ghz free frequency band is adopted, which has strong anti-interference ability and is convenient for industrial field use
- Small size, suitable for all kinds of industrial site installation
- Low power design

## Technical indicators

◇ Wireless Vibration and temperature sensor	
◇ Vibration measurement parameter	
◇ Vibration range	◇ $\pm 50g$
linearity	1%
Frequency response	2~20kHz $\pm 3dB$
Sampling frequency	1280Hz~51.2kHz
Analysis of the frequency	500Hz,1kHz,2kHz,5kHz,10kHz,20kHz
Long waveform sampling length	maximum 512K
Measurement defines sampling length	1K,2K,4K,8K,16K,32K
Temperature measurement parameter	
The temperature range	-40~125 °C
Temperature measurement accuracy	$\pm 0.5$ °C (-40°C ~ 125°C)
Electrical and structural parameters	
The power supply mode	Lithium - thionyl chloride battery, 3.6V 8.5Ah
Communication mode	2.4GHz IEEE 802.15.4
Transmission distance	Barrier free 300 meters without interference
size	RH605 47 mm × 94 mm (diameter × height)
weight	208 g
Mounting thread size	Metric M6
installation	Bolt mounting or metal gluing
Environmental parameters	
Working temperature	-40~70 °C
IP code	IP68
Explosion-proof grade	ExiaIICT4Ga (can be used in Zone 0,Zone 1,Zone 2)
Explosion proof certificate number:	CE19.2400X

### 三、Install

Install using bolts or metal glue.

### 四、Notes for installation and operation

- (1) Please read the operation manual carefully before using this product.
- (2) This product needs to be used and maintained by people who have been trained for a certain period of time or professionals.
- (3) Use should be avoided as far as possible: knock, drop, long time near high temperature source and long time in high corrosion environment, so as not to affect performance.
- (4) Install sensors correctly to ensure sensor sensitivity and measurement accuracy.
- (5) Do not allow to replace the original device or structure, so as not to affect the

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explosion-proof performance.

(6) The type of battery pack shall be one of the following three types, and the battery test shall meet the requirements of temperature group and electrolyte leakage test in the flameproof mark.

Type C, xl-145f, 3.6v 8.5ah lithium thionyl chloride battery, manufactured by king (XenoEnergy Co.,Ltd.) lithium battery Co.,Ltd

Vitzrocell Co.,Ltd, South Korea, type C, sb-c02, 3.6v 8.5ah lithium thionyl chloride battery.  
EVE Energy Co., Ltd, model C, ER26500, 3.6v 8.5ah lithium thionyl chloride battery.

Do not change batteries in dangerous places

(7) The wireless monitor housing is made of aluminum alloy, which can prevent ignition hazard caused by shock or friction when installed and used.

(8) The upper cover and shell of the product are made of plastic material, which has the potential danger of electrostatic core.Clean with a damp cloth.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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## **FCC STATEMENT :**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

**Warning:** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

## **FCC Radiation Exposure Statement:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.