



MR3872C Current Monitoring RFID Tag Instruction (V1.0)

SHENZHEN MARKTRACE CO.,LTD

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1Product Instruction

1.1 Product Features

- 1, Measure up to GB2099.1-2008 and GB1002-2008 standard three-pin plug and socket. More safe and reliable.
- 2, Power supply by AC, standby battery inside, working above 5 years.
- 3, Tamper alarm device avoid spite remove.High Precision current measurement, error less than 0.1%
- 4, Inside 2.4G RFID antenna, transmitting distance 80 meters.

1.2 Product Description

2.4G Current Monitoring RFID Tag MR3872C suit for information assets management of electrical equipments. It adopt RFID technology and current measurement technology. Not only for electrical equipment inventory checking, but also for working status real-time control and capacity utilization control. MR3872C has two male and female power input/output plug, easy to fixed on equipment. In real-time to control equipment current.

1.3Applications

- Laboratory electrical equipment assets supervision
- Remote room equipment remote control.

1.4Product Image



2Installation Precautions

Marktrace does not assume warranty liability for unauthorized removal or change components caused by fault

- 1、 Handle with care, MR3872C can not withstand strong vibrations, can not withstand the high intensity (more than 1.5 meters) of free fall.
- 2、 Away from fire. In use, when you notice abnormal odor, Case of overheating or smoke appears. Please turn the power off immediately and pull out the plug from the AC outlet. And contact your dealer or our customer service center. If you continue to use tag, it may have the risk of fire and electrical shock.

3 Technical Parameters

Items	Parameters
Electrical Features	
AC Input Current	0A~10A
AC Input Volt	110V ~ 130V/60Hz
	220V ~ 240V/50Hz
Measuring Accuracy	0A~2A, deviation $\pm 5\text{mA}$
	2A~10A, deviation $\pm 10\text{mA}$
Air Discharge	8000V
Power Supply Mode	AC powered (build-in back battery)
Battery	1200mAh
Life Time	5 years
RF Features	
Working Frequency	2.425GHz
MAX Output Power	0dBm
Modulation Mode	GFSK
Data Rate	1Mbps
Dimension	Body: 56.02x36.58x27.84mm Cable:235mm Female 405mm Male
Weight	170g
Environment Features	
Working Temperature	-20℃ to +60℃
Store Temperature	-40℃ to +80℃

4 Application Guide

4.1. Installation

Same using as three-wire power cord. Connect one end of tag to equipment which need monitoring, connect another end to AC power. Meanwhile, tag with 3M side need paste on equipment too. To power the tag. After power-on, LED will blink.

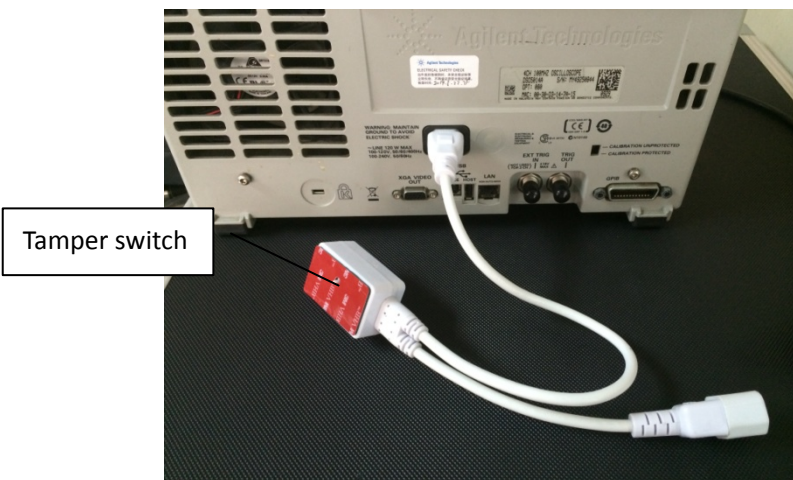


图 1

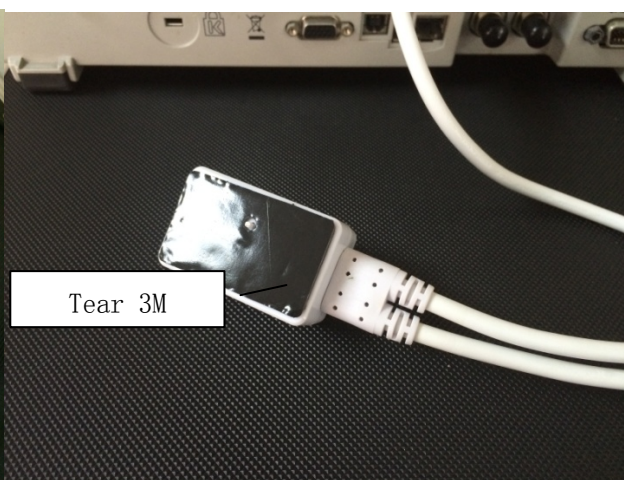


图 2

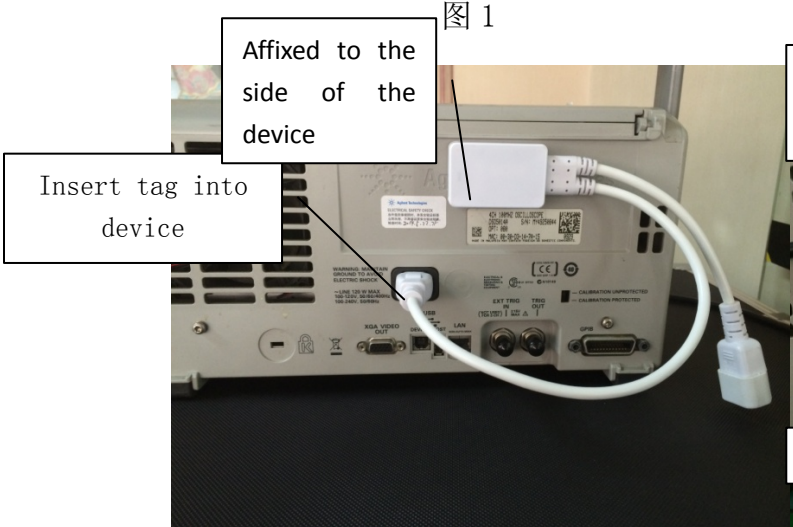


图 3

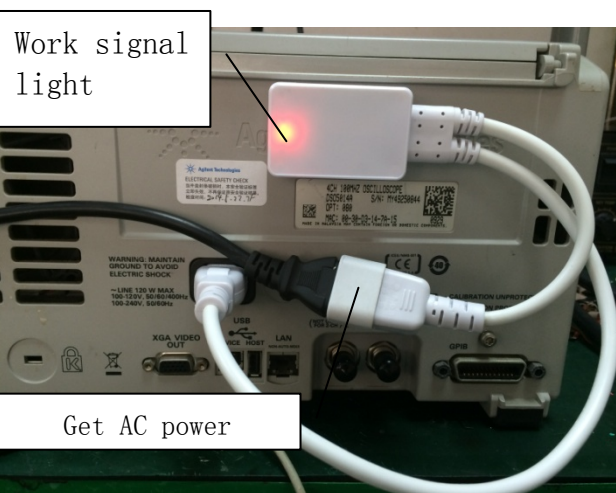
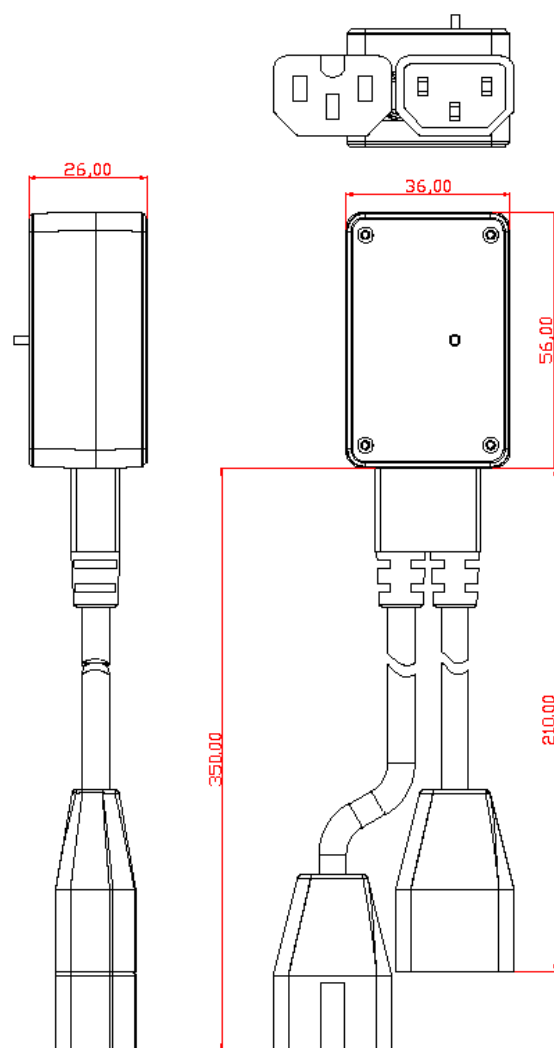


图 4

4.2. Applications

Current monitoring tag can be monitored these information:RMS current on the AC mains,tag tamper alarm, AC is turned on and battery charge status.These information was sent via 2.4G RF, received by the reader.

5 Schematic



6 Common Faults and Exclusion Approach

Fault Description	Simple Remedy
Low battery	■ Tag at room temperature, life time can reach 5 years. After 5 years, tag battery is low, should be replaced. If tag life less than 5 years and battery is low, please contact customer service.
Not properly monitoring equipment current	■ To power the device, tag LED working. Tag monitoring device current value is zero all the time. Tag status info does not appear low battery, but can't monitoring any current. In this case, tag inside circuit failure, please contact customer service.
Routine Maintenance	■ Try to avoid the use of tags under wet conditions

FCC STATEMENT

1. 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.

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, 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 the 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.



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