



SHENZHEN YESSYS TECHNOLOGY CO.,LTD

# Intelligent grounding monitor MG04 MG08

## User manual

- Please read this product manual before use.
- Please keep it properly after reading and place it in a convenient place for storage



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## 1/ Production brief introduction

In the production site of electronic products ,the human body release static electricity by wearing ESD wrist strap ,while instruments and equipment eliminate static ; EOS and EMI by grounding,However the effectiveness is bad due to the lack of effect monitoring,even there is limited frequency for routine check ,which only ensure that the effectiveness is good at the moment of checking ,the intelligent monitor will transform the traditional static protection work of simple ,unknown state and easy to get out of control into safe ,on-line and controlled

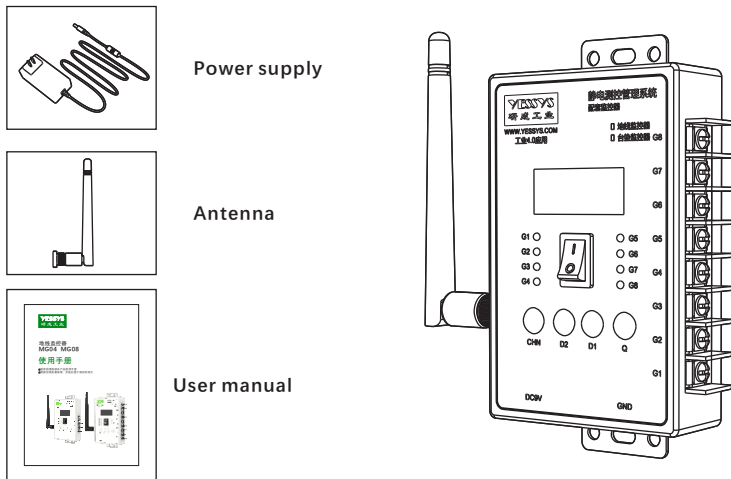
## 2/ Product feature

- 1: Dual display: digital LED displays various information and parameters in detail, and LED indicates monitoring status.
- 2: Check and set parameters by button.
- 3: It can be calibrated. If there is an error between the displayed value and the actual value, it can be manually corrected.
- 4: Alarm indication: indicator light and alarm sound.

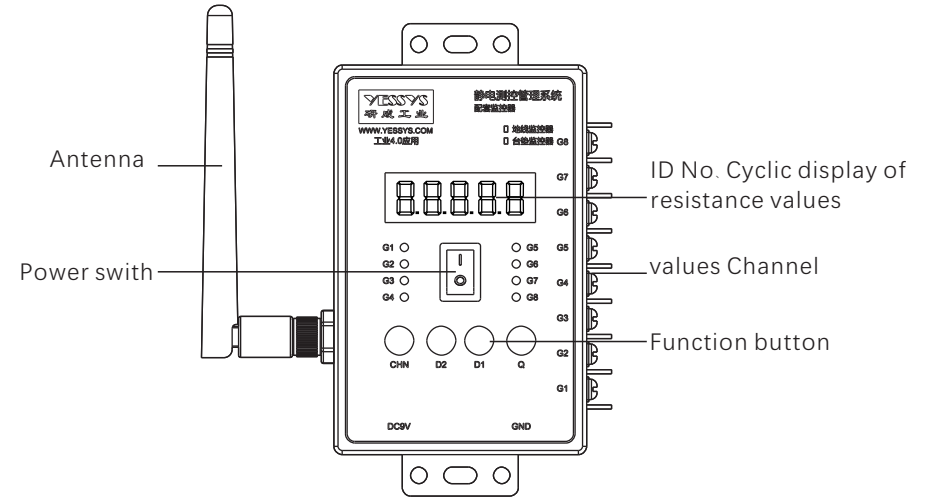
## 3/ Monitoring object

Equipment grounding resistance (G1-G8): resistance value 1-25 Ω

## 4/ Confirm the package ( MG08 and MG04 are the same)



## 5/ Production introduction



1.8 pcs LED (G1~G8)

Equipment grounding resistance (two-color light G1-G8)

Green on :Normal

Red on: The ground resistance of the equipment is greater than the alarm setting value  
Off: The monitoring function of the device isn't in use

2. Five digit nixie A1,A2,A3,A4,A5

A1 for function code :0 –monitoring value check mode

1 -- Alarm value setting mode

2 -- Calibration mode

3 -- Set alarm value checking mode

A2 for channel code :digital 1~8 means channel1~channel 8

A3A4A5 for code display :when the accuracy is 0.1 ohms ,A4 is unit digit ,A5 is the decimal place ,when the accuracy is 1 ohms ,A4 is the tens ,and A5 is the unit digit

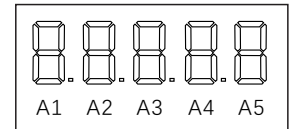
3. Four button : CHN,D1,D2, Q

CHN : channel selection setting

D1 : add 1

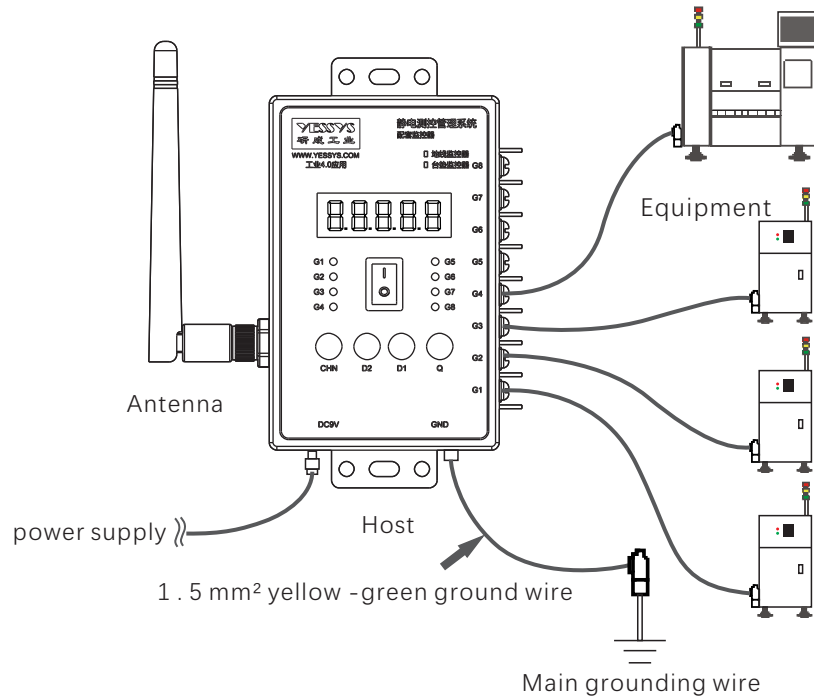
D2: minus 1

Q:Exit

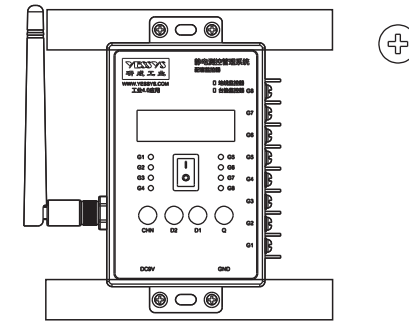


## 6/Installation instruction

1. The metal wiring terminal GND : connects to the main ground for power .
1. Black connector G1 - G8: Connected to the equipment to be monitored



- 1: Specify the installation position (one device can monitor 1-8 equipment, generally install the device in the position where the equipment to be monitored is concentrated, which is easy to route) Take out the device in the order of ID number, install the antenna (one line should be installed in the order of ID number as far as possible), and lock the "GND" with yellow-green main ground wire. The other end is locked to the main ground wire. .
- 2: Fixed device : the device is fixed on proper position in the right direction, and the fixing method can be used with cable ties or screws, and the position of each device in the same production line should be at the same height as far as possible.



3. Connect the wires

- A: Use a 1.5 mm<sup>2</sup> yellow and green wire to pull the cable from the lockable screw on the shell of the device to be monitored to the wiring position of the product along the cable position, and add labels at both ends. Each product is distinguished by a different letter and number.
- B: Organize all monitoring wires, label them clearly, press the blue terminals, and lock them to the corresponding positions of G1-G8 according to the serial number (such as A1-A8). Press the corresponding terminals on the other end according to the wiring points on the device, and lock them to the equipment shell.
- C. Plug in the power supply
- D. After organize all the wires ,tie them with cable ties along the pipe ,and tie the excess wires at the bottom of worktable

### Note:

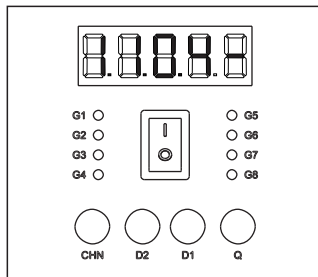
- 1: Do not remove the original ground cables of the devices to be monitored, and ensure that all wires are properly connected then turn on the host power.
- 2: If channel number is not used up, you must close the unused channel in the background software, otherwise it will alarm.
- 3: When all the monitoring equipment is normal, the digital cycle displays the resistance value of each channel and device ID number, the LED is green, if it is NG, the channel displays four pcs 8 digits and flashes, and the sound and light alarm is given.

## 7/Operation and setting

Monitor value View --0:

A1 displays 0, indicating the monitoring mode (this mode is the default mode and does not require key combination to enter); A2 displays 1-8, indicating channels G1-G8.

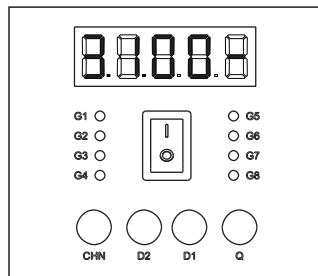
A3,A4,A5 show the current actual monitored resistance value of the channel;  
When the resistance value of the channel is less than 25 ohms, A3,A4,A5 will display it correctly (when the resistance value of the channel is less than 10 ohms, the display accuracy is 0.1 ohms; When the resistance value of the channel is 10-25 ohms, the display accuracy is 1 ohms); If the value is greater than 25 ohms, “- -” is displayed, indicating that the value exceeds the range. Press CHN to switch to the next channel (press D1, D2,Q are invalid);



2: Set alarm value check --3:

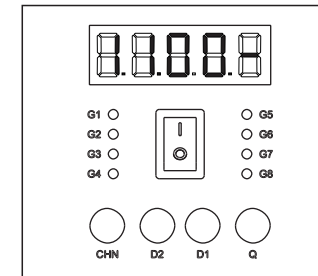
Enter mode: First hold down the D2 key, and then press CHN for about 3 seconds, A1 will be displayed 3, indicating that the alarm value check mode is entered; A3,A4,A5 show the current alarm value; Press CHN to select the channel (buttons D1, D2,Q are invalid)

After checking the 8 channels, exit the mode and A1 is displayed as 0.  
The display accuracy in this mode is 1 ohms.



3: Alarm Settings 1:

Enter mode: First hold down the D1 key, and then press CHN for about 3 seconds, A1 will display as 1, indicating that the alarm setting mode has been entered ,A3,A4 ,A5 display the current alarm value, and modify the value by press D1, D2; CHN for channel selection  
After setting, press Q twice to save and exit, A1 is displayed as 0; If you want to exit without saving by press CHN continuously. After all channels are displayed, press CHN twice to exit. The display accuracy in this mode is 1 ohms.

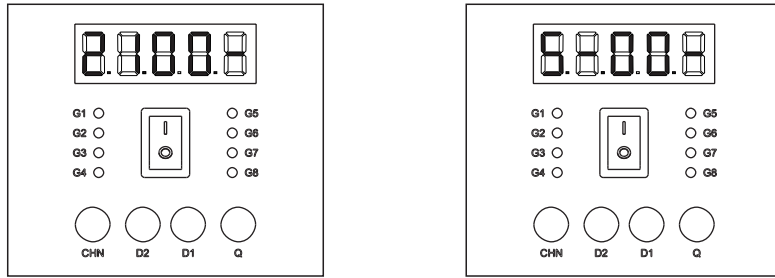


**Note:**

- 1: When the alarm value is set to 00 -, the alarm function of the channel can be turned off (horn and LED indication);**
- 2: Alarm Settings can be set up all channels at once before exiting.**

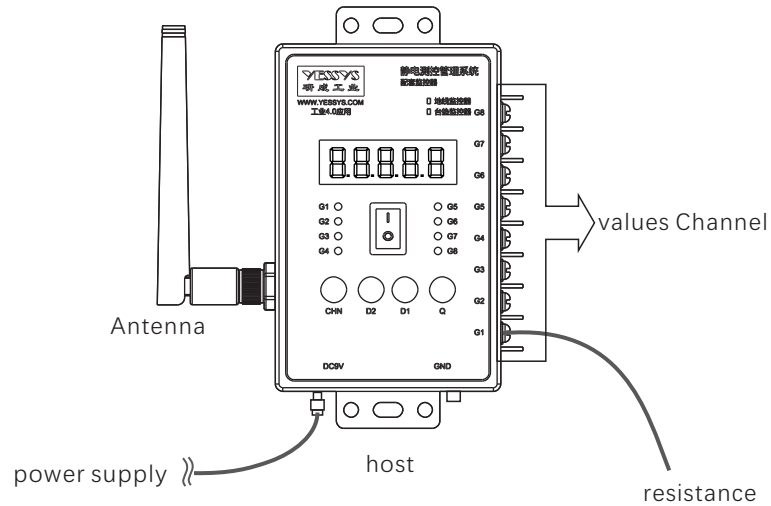
4:Calibration 2:

Connect the channel to be calibrated to the standard resistor and wait 5 seconds before performing the calibration:  
Enter the mode: Hold down the Q key, and then press the CHN key for about 3 seconds,A1 will display as 2, indicating that the calibration mode is entered; A3,A4 , and A5 start to display the initial status 00 -. Enter the calibrated resistance value by D1 and D2. After the displayed value is consistent with the standard resistance value, press Q twice to save and exit. A1 is displayed as 0, completing a channel calibration, and the display accuracy is 1 ohms in this mode.  
The display resolution in this mode is 1 ohms.



**Note:**

- 1: When the alarm value is set to 00 -, the alarm function of the channel can be turned off (horn and LED indication);**
- 2: Alarm Settings can be set up all channels at once before exiting.**



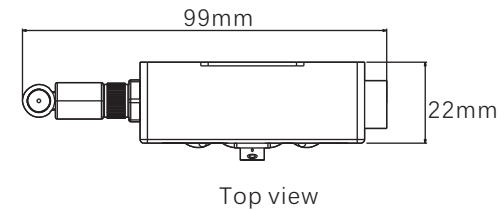
**8/软件安装说明**

The software including :digital factory management system ,internet of things service data collection and other software, the computer and service which will be installed the software is provided by the customer ,the server configuration is determined by the number of users, Recommended server configuration : System Window server 2012, CPU 4 core or above, memory 8G or above, storage space 500G or above We will support online remote installation or telephone installation guide , any questions ,please call 0755-27447560

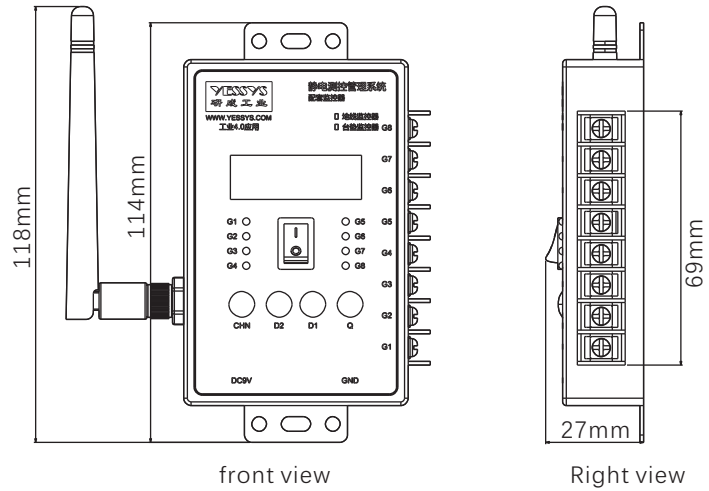
**9/Specification**

Product name	Ground wire monitor	
Product model	MG 04	MG 08
Monitoring scope	1-25 ohm	
error	±10%	
Alarm setting range	1-25 ohm	
Calibration range	1-25 ohm	
input voltage	9Vdc, 0.6A	
Appearance material	Tinplate,Electrostatic spraying	

**10/ Exterior dimentsional drawing**



Top view



## 11/ Safety caution

- ◆ Please read this instruction before installation and use
- ◆ Reliable grounding is necessary before operation
- ◆ Do not operate the device in an flammable and explosive environment
- ◆ Unauthorized repairs are not allowed

## 12/Product warranty and service

### Product warranty

**YESSYS'S products are strictly inspected by the factory, in case of failure ,please contact YESSYS who will provide detail solution of the failure**

#### 1.Warranty period:

The warranty period of products sold by our company is one year, and the warranty period is one year from the date of sale due to the parts ,material or process quality problem of the product ,we will provide free repair 。

2.During the warranty period ,we have the right to refuse the warranty service and

charge the repair component fee and service fee as appropriate under the following status:

- A.Product failure caused by improper use or wrong operation by the user
  - B.Burnt-out accidents caused by lightning strikes or improper installation
  - C.Label damage or unauthorized disassembly for maintenance
- 3.Please pack and ship properly the product for repair , we will not be responsible for any damage or loss during transportation
- 4.We reserves the right of final interpretation ,subject to change without prior notice.