

# 0-10V/0-22mA Voltage And Current Signal Generator

Model: JS-VISG-M-S



## User Manual

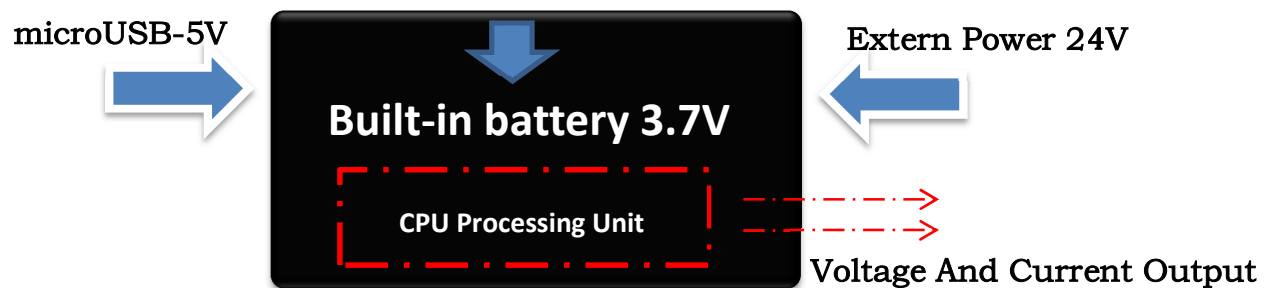
2018-10

First Edition In English

## 1 Technical Indicators

- 1.1 External Power Supply:DC15-30V 1W(Non charge)/5W(Charging);
- 1.2 3.7V Lithium Battery Capacity 1000mAh, Maximum Charge Current 0.8A (Selection Configuration);
- 1.3 External Connection microUSB- 5V :0.2A(Non charge)/1A(Charging);
- 1.4 Adjustable Voltage Output 0-10V, Precision 0.01V,Can Be Calibrated;  
Maximum Output Current 20mA;
- 1.5 Adjustable Current Output 0-22mA,Precision 0.01mA,Can Be Calibrated;  
Sampling Resistor Is Not More Than 500  $\Omega$  ;
- 1.6 Digital Display Digit 4 Digit, Two Decimal;
- 1.7 Encoder Knob Rotate One Circle Has 20 pulses;

## 2 Power

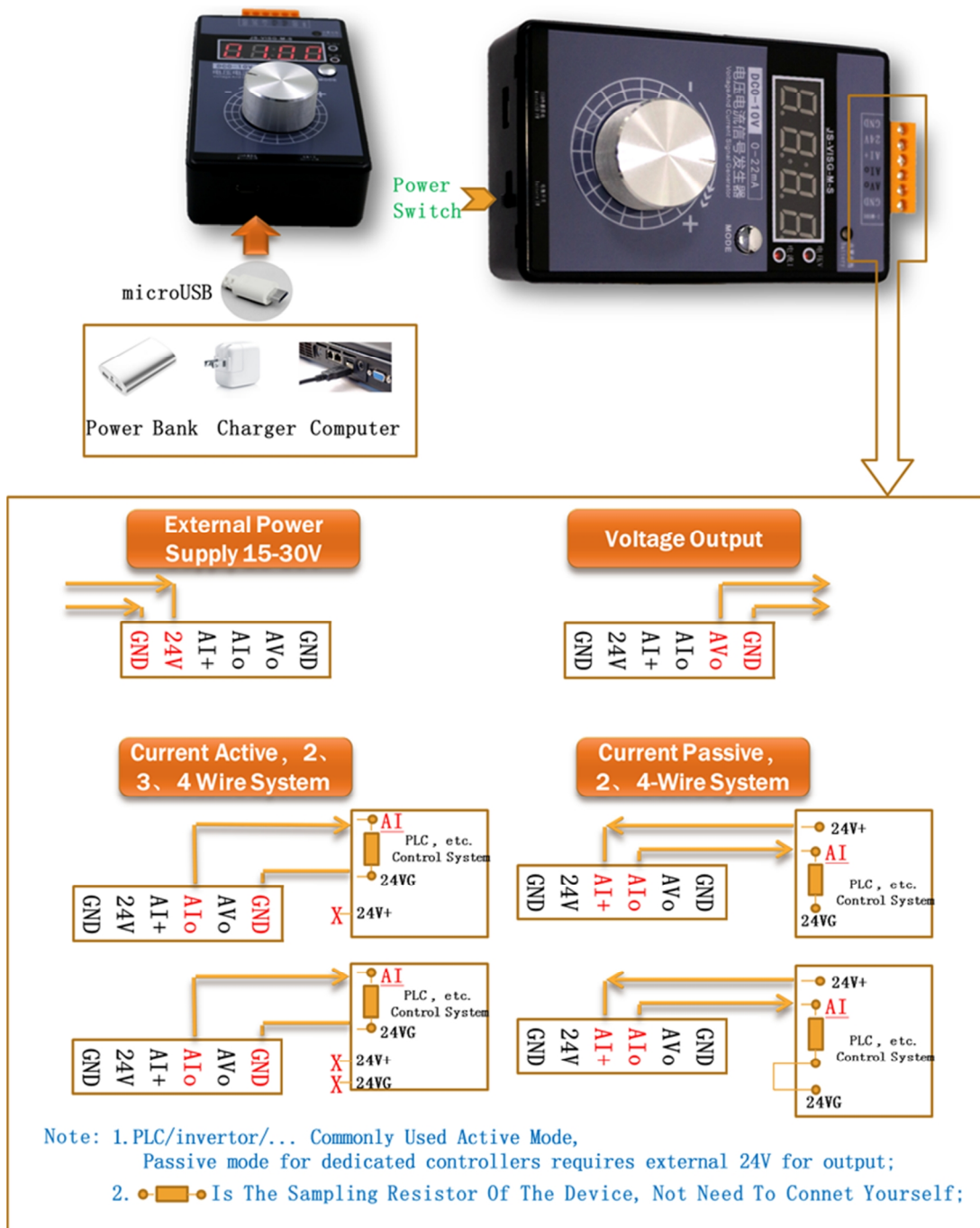


✓ Three-Way Power Supply Can Be Connect At The Same Time, Any One Power Can Work.

## 3 Size Diagram



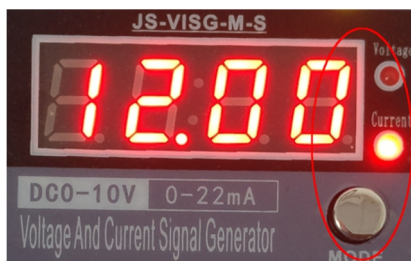
#### 4 Wiring Diagram



**How to judge whether the module device is active or passive? Common method:**

- 1、Internal Principle Of The Device, If "I+" Is 24V+, It Is Passive; If "I-" Is 24VG, It Is Active;
- 2、Use a multimeter to measure the voltage between I+ I-. =0V, it is active; =24V, it is passive.

#### 5 Voltage And Current Switching



Press The "MODE" Button To Switch Voltage And Current Adjust Mode;

The Indicator Shows What State It Is Currently In, System Operation Is Also Corresponding To Which Mode;

After Switching, The Original Mode Will Continue To Output, But It Is Not In The Adjustment State.;

**6 System Operation(Push Down The Knob Is "OK<Confirm>",Clockwise Rotation The Knob One Pulse Is" + <Add>", Anticlockwise Rotation The Knob One Pulse Is" - <Minus>"):**

6.1 Short Press "OK" To Save The Output Value When The Normal Operation Screen,Digital Tube Display "...". After loosening, Saved Successfully, The Output Value Is This Saved Value After The Next Boot; When We Debug The Device, We Need To Adjust The Output Value Randomly, As Long As The Knob Is Not Pressed, It Will Still Be The Saved Value After Rebooting;

**6.2 Parameter Setting Steps:**

6.2.1 Press And Hold The "OK" For 2 Seconds On The Normal Adjust Screen To Enter The Setting State.,Display"F001"(Parameter Number 001);

6.2.2 Turn The Knob To Change The Parameter Number (The First Time You Enter "F002",You Need To Enter Password "+ - - +" First);

6.2.3 When Display The Parameter Number, Press "OK" To Enter The Corresponding Parameter Value Setting, And Rotate The Knob To Modify The Parameter;

6.2.4 Press The "OK" To Save The Parameter, Exit The Parameter Setting, And Display The Next Parameter Number(If Haven't Enter The Password,Normal Adjust Mode Will Be Entered After "F001" Value Setup);

6.2.5 Rotate the Knob Directly To The Last Parameter Number "Fend", Press The "OK", The Setting Is Completed And Enter The Normal Adjust Mode;

6.2.6 After The Parameter Setting Display Has Not Operated For More Than 10 Seconds, It Will Exit The Setting State And Enter The Normal Adjust Mode;

**6.3 Examples Graph:**

**6.3.1 Modify "F001" Coarse/Fine Adjustment Mode**

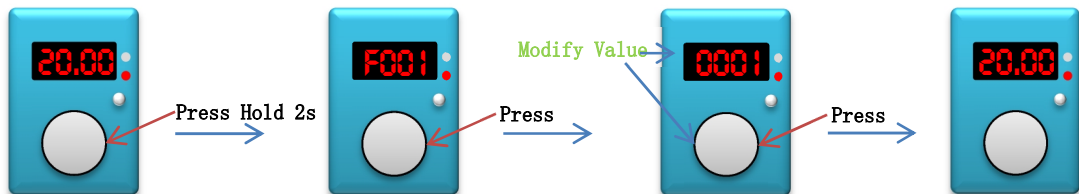


Figure 1→2:Press And Hold The Knob 2 Seconds To Display "F001";

Figure 2→3:Press"OK", Set The Value Of "F001", Rotate The Knob To Change The Value;

Figure 3→4:Press"OK",Exit The Setting State And Enter The Normal Adjustment Mode;

**6.3.2 Modify "F006" Calibration Value(It Is Best To First Adjust Output To 10V/20mA)**

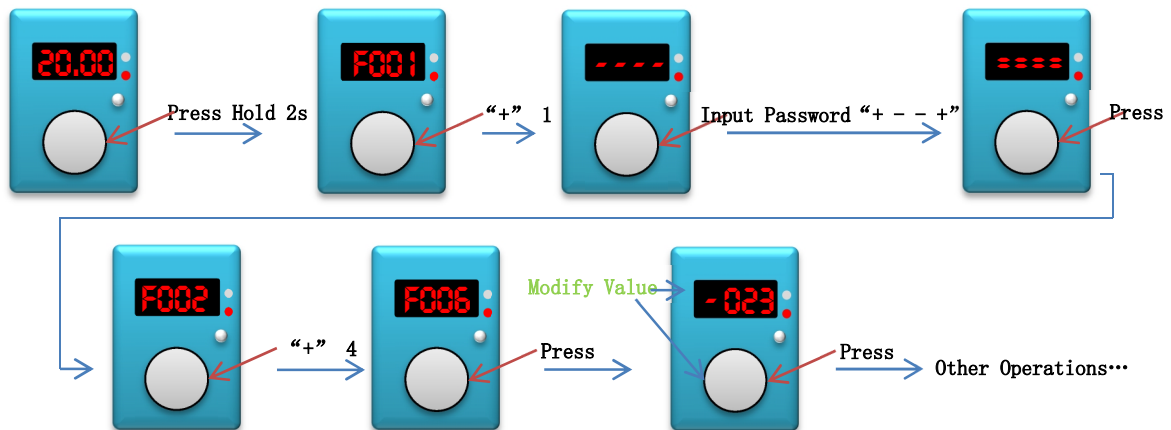


Figure 1→2:Press And Hold The Knob 2 Seconds To Display “F001”;

Figure 2→3: “+” One Pulse, Display “- - - -” ;

Figure 3→4:Input Password “+ - - +”, Display “= = = =” ;

Figure 4→5: Press “OK”, If The Input Is Correct, Display “F002”,Otherwise Display “Err” And Exits;

Figure 5→6: Rotate The Knob To Display “F006”;

Figure 6→7:Press The "OK" To Set The Value Of “F006”,And Then Modify The Value So That The Actual Output Is Equal To The Display Value Before Entering The Setting;

Figure 7→ : Press “OK” To Save, Or Not Save For No Operation More Than 10 Second;

#### 6.4 Enter Current Parameter Setup In Current Adjust mode, Parameter Description Table:

**Must Enter The Password “+ - - +(Turn The Knob)” Before Enter Parameter “F002”**

Parameter Number	Description	Note	Default
F001	Coarse/Fine Adjust	0: Coarse 1: Fine	0
F002	Output Mode	0:0-10V 1:2-10V 2:0-5V 3:1-5V 4:0-3.3V	0
F003	Display Mode	0:Real Voltage 1:Percentage 0-100.0% 2:50HZ	0
F004	Add Or Sub Num For Each Knob's Pulse (Coarse Adjust )	1-50 No Decimal Point Concept $(1-50) \times 10$	1
F005	Add Or Sub Num For Each Knob's Pulse ( Fine Adjust )	1-50 No Decimal Point Concept $(1-50) \times 1$	1
F006	Calibration Value	-999 -- +999 Internal Reference,Please Be Careful	

#### 6.5 Enter Current Parameter Setup In Current Adjust mode, Parameter Description Table:

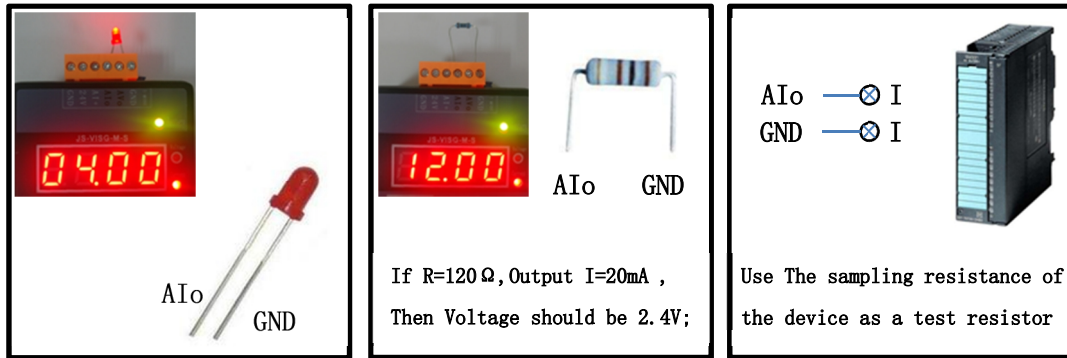
**Must Enter The Password “+ - - +(Turn The Knob)” Before Enter Parameter “F002”**

Parameter Number	Description	Note	Default
F001	Coarse/Fine Adjust	0: Coarse 1: Fine	0
F002	Output Mode	0:0-20mA 1:4-20mA 2:0-22mA	0
F003	Display Mode	0:Real Current 1:Percentage 0-100.0% 2:50HZ	0
F004	Add Or Sub Num For Each Knob's Pulse (Coarse Adjust )	1-50 No Decimal Point Concept $(1-50) \times 10$	1
F005	Add Or Sub Num For Each Knob's Pulse ( Fine Adjust )	1-50 No Decimal Point Concept $(1-50) \times 1$	1
F006	Calibration Value	-999 -- +999 Internal Reference,Please Be Careful	

## 7 Current Output Test Method: Alo GND

It is often said that the test does not have a current output, Actually the ammeter is broken, So we use the method of measuring voltage to verify the quality of the signal generator.

As shown below:



- 7.1 Connect an LED indicator, if the brightness changes with the adjustment, then the signal generator current output is no problem;
- 7.2 Connect to the AIO GND with a 50-300 ohm resistor. If there is voltage and the voltage = current X resistance is satisfied, the voltage will change with the adjustment, then the signal generator current output has no problem;
- 7.3 If there is PLC/inverter, measure the resistance between I+I-. If it is between 50-300 ohms, it can be used as test resistance, AIO is connected to I+, GND is connected to I-, voltage is measured, if there is voltage, And satisfy the voltage = current X resistance, the voltage will change with the adjustment, then the signal generator current output is no problem;

## 8 Precautions:

- 8.1 Please Read This Manual Carefully Before Wiring;
- 8.2 Turn Off The Power And Then Connect;
- 8.3 Exceeding The Range Indicated By The Technical Indicators May Cause The Instrument To Work Abnormally Or Even Be Damaged;

**JS-VISG-M-S**