DEGSON

Analog test box DWD-1

User Manual

Thank you for choosing Degson products. Please read this instruction manual carefully before using the product.

- It is intended to be used by personnel with certain electrical knowledge.
- Before using this product, please read this manual carefully and use it correctly after fully understanding the product.
- For your convenience, please keep this manual properly so that you can refer to it at any time.

symbol

The following symbols are important reminders in this manual. Please be sure to comply with the following.

⚠	There is a risk of malfunction or fire. Please do not exceed the rated voltage when using.
⚠	Do not use as there is a risk of rupture.ACpower supply.
⚠	There is a risk of burns due to high temperatures.

Safety Tips

To ensure your safety, please be sure to follow the following.

- Do not use in an environment with flammable or explosive gases.
- Do not use the product in an environment with water, oil, chemical droplets, or in contact with steam.
- Do not disassemble, repair, or modify the product without authorization.
- Do not exceed the rated voltage and current range during use.
- Do not use in environments beyond the rated value.
- Please pay attention to the polarity of the working power supply and do not connect the wrong wires.
- Please connect the load correctly.
- Do not short-circuit the load.
- Do not use if the casing is damaged.
- When disposing of it, please treat it as industrial waste.

Confirmation of packaging contents

- Test Box — One
- User Manual — One
- Product Certific ate — One
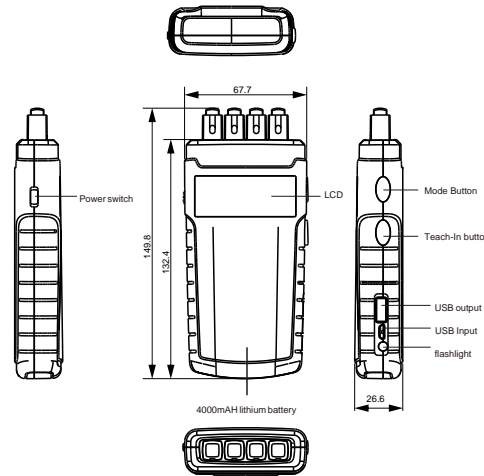- Power adapter — One
- USB cable — One

characteristic

1.Three modes are available: analog voltage, analog current and digital quantity

2.Built-in 15-bit independent ADC, full-scale accuracy can reach 0.4%

3.Customized LCD display, high-definition visibility

4.Built-in 4000mA large-capacity lithium battery, can support power bank function

5.Built-in flashlight for lighting

Technical Parameters

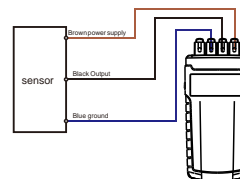| model	DWD-1	
Detection Type	Digital (D), Voltage (V), Current (I)	Three modes to choose from
Measuring range	0-10V	Voltage Mode
	0-20mA	Current Mode
Measurement accuracy	≤0.04V（Full range）	Voltage Mode
	≤0.04mA（Full range）	Current Mode
Scan cycle	22ms	Digital Mode
	140ms	Voltage Mode
	140ms	Current Mode
Output voltage	19V~24V	Brown output
	4.8V-5V	USB port
Output Current	≤160mA	Brown output
	≤500mA	USB port
ADC Accuracy	15th	
Battery capacity	4000mAH	
Charging time	9H	
Other Features	Power overcurrent protection, sleep function, mute function, flashlight	
Operating temperature	- 10℃~45℃	
weight	200g	

Dimensions

Unit: mm

Power switch
LCD
Mode Button
Teach-In button
USB output
USB Input
flashlight
4000mAH lithium battery
67.7
149.8
132.4
26.6

Instructions

a) Normal mode:

sensor
Brown power supply
Black Output
Blue ground
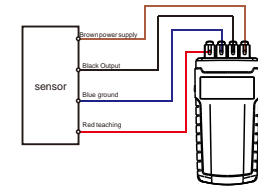
1.Connect the terminals of corresponding functions and turn on the power.

2. Select the corresponding measurement mode (voltage, current, digital).

3.The measurement results are displayed on the screen.

b)Teach-In mode:

sensor
Brown power supply
Black Output
Blue ground
Red teaching

1.Connect the terminals of corresponding functions and turn on the power.

2. Select the corresponding measurement mode (voltage, current, switch).

3. Perform teaching according to the product teaching logic.

4.The measurement results are displayed on the screen.

Functional Description

1. Mode Switching

Short press the MODE button, the test box will）, voltage (V)，switch (D) Three modes to switch, customers select the correct mode and connection according to the sensor type, the test results will be displayed on the screen, and the test box will store the current test mode and restore the last state the next time it is turned on.

2. Battery level display

During normal operation, the power indicator will be displayed in the upper right corner and the number of bars represents the remaining power. When it flashes, it means the power is low and needs to be charged in time. When charging, the number of flashing bars indicates the charging progress. When it is full, the full power symbol will flash

3. Sleep mode

If the test box is not operated for more than 10 minutes, the test box will enter sleep mode, the 24V power supply and the screen will be turned off, and pressing the Mode key or Teach-IN key will wake up the test box.

4 .Powerbank Modes

In the shutdown state, press the mode button and turn on the power button. The buzzer will sound twice and the sleep function of the test box will not be remembered. The sleep function will be turned on by default next time the machine is turned on.

5. Silent Mode

If you press and hold Teach-In for more than 6 seconds, the buzzer will sound once, indicating that the test box has entered silent mode. If you perform the same operation, the buzzer will sound twice, indicating that the silent mode has been exited. At the same time, the test box will store the status and will retain the last status when it is turned on next time.

6.Teach-In Function

Press the teach button.（The red terminal will output a high level voltage, and the voltage logic is consistent with the brown terminal voltage. Release the button and Teach-In（The red）terminal will output a low level voltage, and the LCD will display the current Teach-In logic status.

7. Flashlight function

Press and hold the mode button for more than 2 seconds to turn on the light. The same operation can turn off the light.

8. Short circuit protection

When the output current of the test box is too high, short circuit protection will be triggered. The LCD will display 'SCP' during short circuit protection. After the short circuit condition is removed, the test box will automatically return to normal state.

9. Power bank function

The test box has a power bank function. Connect the device to be charged to the OUT port, turn on the power switch, and the test box will start charging the external device.

Notice:

Since the current is relatively large during external charging,