FNIRSI 菲尼瑞斯

DMC-100

智能彩屏钳形数字万用表

INTELLIGENT COLOR SCREEN CLAMP DIGITAL MULTIMETER

目录

CATALOG

用户须知

●本手册详细介绍了产品的使用方法和注意事项，请仔细阅读本手册按说明规范使用本产品，以便发挥产品的最佳性能。

●不要在易燃、易爆的环境中使用仪器。

●仪器更换的废旧电池和报废的仪器不可与生活垃圾一同处理，请按国家或者当地的相关法律规定处理。

●仪器出现任何的质量问题，或对使用仪器有任何疑问时，请及时联系我们，我们将第一时间为您解决。

一、产品简介

DMC-100是FNIRSI最新推出的10000计数智能钳形数字万用表,更广阔的测量范围和更高的分辨率,协助你测量更精确的数值,可以精确测量交直流电压、交直流电流,还可用于测试导通性、电容、频率、电阻、二极管、温度、NCV、火线等。适用于工程、实验室,车辆和家用电气等电子维修各个领域。并且配备了分辨率高达240*320的2.0英寸全彩TFT显示屏,全新的UI界面设计和数据曲线，数据保存、功率测量模式等多种功能,丰富你的使用体验,在各个场景中读数和操作都会变得更加便捷。

二、面板介绍


NCV探头
钳头
手电筒功能
屏幕
钳头扳机
手电筒按键
充电/数据
传输口:Type-C
确认/切换键
左键
右键
设置
开关机键
黑表笔接口
红表笔接口
FNIRSI
HOLD
直流电流
600 A
COM
INPUT

三、按键与功能介绍

按键	按键方式	功能
⏻	短按	数据清零（仅直流电流）
	长按	开机/关机
SAVE MENU	短按	主界面：保存数据 设置界面：返回一级菜单
	长按	进入/退出设置
◀ HOLD	短按	主界面：向左切换档位 设置界面：向左/上选择
	长按	主界面：数据保持
⇄ MODE	短按	主界面：切换测试项目 设置界面：确定选择
	长按	主界面：进入/退出波形显示
▶ V-A	短按	主界面：向右切换档位 设置界面：向右/下选择
	长按	主界面：进入/退出功率测量页面
🔦	长按	打开/关闭手电筒

四、参数介绍

4.1 性能指标参数

功能	量程	精度
直流电压	9.999V/99.99V/999.9V	±(0.5%+3)
交流电压	9.999V/99.99V/750.0V	±(1%+3)
直流电流	99.99A/600.0A	±(2.5%+10)
交流电流		
电阻	9.999MΩ/999.9KΩ/ 99.99KΩ/9.999KΩ/999.9Ω	±(1.5%+3)
	99.99MΩ	±(1.5%+3)
电容	999.9μF/99.99μF/9.999μF/ 999.9nF/99.99nF/9.999nF	±(2.0%+5)
	9.999mF/99.99mF	±(5.0%+20)
频率	9.999MHz/999.9KHz/ 99.99KHz/9.999KHz/ 999.99Hz/99.99Hz/9.999Hz	±(0.1%+2)
温度	(-55~1300°C)/(-67~2372°F)	±(2.5%+5)
二极管	✓	
通断	✓	
非接触性电压探测(NCV)	✓	
单表笔交流电压探测(LIVE)	✓	

4.1 整机主要参数

产品型号	DMC-100
屏幕	2.0寸彩屏
供电	3.7V锂电池
充电规格	USBType-C，5V/1A
钳口最大尺寸	25mm
产品尺寸	193x74x32mm
产品重量	194g

五、操作说明

5.1 主界面

①测量档位　②测量参数

③单位　④最小值

⑤最大值

⑥档位切换：短按 HOLD 和 V-A 来切换测量档位：直流电流、直流电压、电阻、电容、频率、零火线检测，短按 MODE 可切换该档位下的其他测试项目，比如直流电流/交流电流

⑦**数据保持:**长按 HOLD 可保持当前测试数据,保持时显示 HOLD ,未保持时显示 HOLD 。

⑧**手电筒:**长按 可打开/关闭手电筒,手电筒打开时显示 ,未保持时显示 。

⑨**数据清零:**仅直流电流单位下可短按 进行数据清零,显示 Z 。

⑩**电量:**足电显示 ,不足电显示 ,电量过低时弹窗提示并自动倒计时关机。

5.2 波形显示界面

长按 MODE 进入波形显示界面

①**测量参数** ②**单位**

③**测量档位**

④**波形显示:**显示测量数据变化波形

⑤**数据保存:**短按 SAVE MENU 保存数据,该栏可保存8组数据,更多数据请在设置界面查看历史记录

⑥**最小值** ⑦**最大值**

5.3 功率测量界面

长按 V-A 进入功率测量界面,该模式下交直流自动识别

①电流数据

②功率计算

③电压数据

5.4 设置界面

长按 SAVE MENU 进入设置界面

①设置选择:历史记录、系统设置、恢复出厂、关于

②具体设置详情:

【历史记录】:

测量时短按 SAVE MENU 保存数据,历史记录可保存30组数据

【系统设置】:

可设置语言:中文简体/English;

亮度:10档调节;

温度单位:°C/°F;自动关机:OFF/5min/15min/30min

【恢复出厂】:恢复出厂设置

【关于】:品牌信息、版本号

六、固件升级

关机状态下按住" ◀ HOLD "和" SAVE MENU "按键，然后再按" ⏻ "开机，屏幕会出现“固件升级”字样，接着用数据线连接电脑，,电脑会出现一个"BOOT"磁盘，将"固件"或者开机图片复制到磁盘后按" SAVE MENU "键升级。

七、注意事项

- 使用产品前请检查外壳和接口附近绝缘体是否破损。
- 请手指握在表笔的防护装置后面。
- 当测量待测电路时，请勿触摸所有的输入端端口。
- 请在改变档位前断开测试表笔和电路连接。
- 当待测的直流电压高于36V，交流电压高于25V时，使用者应当注意防范，避免电击。
- 请选择正确的档位测量，避免对仪器造成损坏，当所有测量超量程时，屏幕显示“OL”。
- 当电池电量过低时，会弹窗提示，请及时充电，以免影响测量性能，请勿边充电边使用该设备。

八、生产信息

产品名称:智能彩屏钳形数字万用表

品牌/型号:FNIRSI / DMC-100

服务电话:0755-28020752

服务邮箱:support@fnirsi.com

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网址:www.fnirsi.cn

执行标准:GB/T 13978-2008

Notice To Users

- This manual provides detailed instructions on how to use the product, along with important precautions and relevant matters. Please read the manual thoroughly before using the product to ensure optimal performance.
- Do not use the instrument in flammable or explosive environments.
- Used batteries and discarded instruments should not be disposed of with household waste. Please dispose of them in accordance with national or local laws and regulations.
- If you encounter any quality issues with the instrument or have any questions about its use, you can contact "FNIRSI" online customer service or the manufacturer. We will address your concerns as quickly as possible.

1.Product Introduction

The DMC-100 is FNIRSI's latest 10,000-count intelligent clamp digital multimeter, offering a wider measurement range and higher resolution to help you achieve more accurate measurements. It can precisely measure AC/DC voltage, AC/DC current, and is also capable of testing continuity, capacitance, frequency, resistance, diodes, temperature, NCV (Non-Contact Voltage), and live wires. This device is suitable for use in engineering, laboratories, vehicle maintenance, and household electrical repairs across various electronic fields.

The DMC-100 is equipped with a 2.0-inch full-color TFT display with a high resolution of 240*320. The new UI interface design, along with features such as data curves, data storage, and power measurement mode, enrich your user experience, making it easier to read and operate in various scenarios.

2.Panel Introduction

3.Buttons & Functions Introduction

Button	Operation	Function
	Short Press	Data Reset (DC Current Only)
	Long Press	Power On/Off
SAVE MENU	Short Press	**Main Interface:** Save Data **Settings Interface:** Return to the Previous Menu
	Long Press	Enter/Exit Settings
 HOLD	Short Press	**Main Interface:** Switch Range to the Left **Settings Interface:** Select Left/Up
	Long Press	**Main Interface:** Data Hold
 MODE	Short Press	**Main Interface:** Switch Test Function **Settings Interface:** Confirm Selection
	Long Press	**Main Interface:** Enter/Exit Waveform Display
 V-A	Short Press	**Main Interface:** Switch Range to the Right **Settings Interface:** Select Right/Down
	Long Press	**Main Interface:** Enter/Exit Power Measurement Page
	Long Press	Turn Flashlight On/Off

4.Parameter Introduction

4.1 Performance Specifications

Function	Range	Accuracy
DC Voltage	9.999V/99.99V/999.9V	±(0.5%+3)
AC Voltage	9.999V/99.99V/750.0V	±(1%+3)
DC Current	99.99A/600.0A	±(2.5%+10)
AC Current		
Resistance	9.999MΩ/999.9KΩ/ 99.99KΩ/9.999KΩ/999.9Ω	±(1.5%+3)
	99.99MΩ	±(1.5%+3)
Capacitance	999.9μF/99.99μF/9.999μF/ 999.9nF/99.99nF/9.999nF	±(2.0%+5)
	9.999mF/99.99mF	±(5.0%+20)
Frequency	9.999MHz/999.9KHz/ 99.99KHz/9.999KHz/ 999.99Hz/99.99Hz/9.999Hz	±(0.1%+2)
Temperature	(-55~1300°C)/(-67~2372°F)	±(2.5%+5)
Diode	✓	
Continuity	✓	
NCV	✓	
LIVE	✓	

4.2 Main Specifications of the Device

Product Model	DMC-100
Display Screen	2.0-inch
Power Supply	3.7V Lithium Battery
Charging Specifications	USBType-C, 5V/1A
Maximum Jaw Size	25mm
Dimensions	193x74x32mm
Product Weight	194g

5.Operating Instructions

5.1 Main Interface

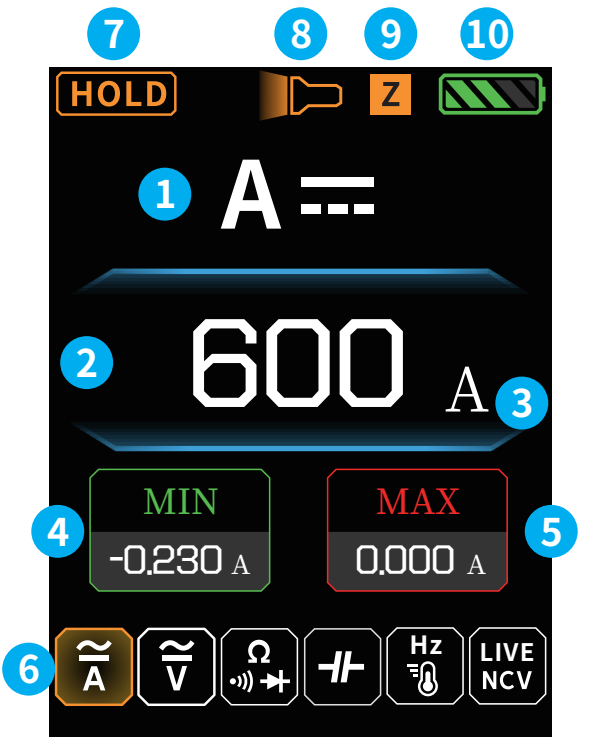
①Measurement Range

②Measurement Parameter

③Unit

④Minimum Value

⑤Maximum Value



⑥**Range Switching:** Short press the “ HOLD ” and “ V-A ” buttons to switch measurement ranges: DC Current, DC Voltage, Resistance, Capacitance, Frequency, and Live/Neutral Line Detection. Short press the “ MODE ” button to switch between other test functions within the current range, such as DC Current/AC Current.

⑦**Data Hold:** Long press the "HOLD" button to hold the current test data. When the data is held, "HOLD" will be displayed; when not held, "HOLD" will be shown.

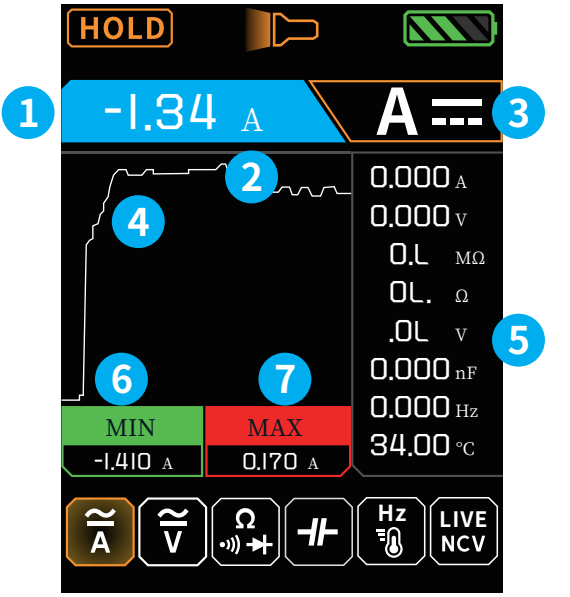
⑧**Flashlight:** Long press to turn the flashlight on or off. When the flashlight is on,  will be displayed; when it is off,  will be shown.

⑨**Data Reset:** For DC Current measurements only, short press to reset the data. Z will be displayed when the data is reset.

⑩**Battery Level:** When the battery is full,  will be displayed; when the battery is low,  will be shown. If the battery level becomes critically low, a popup alert will appear, and the device will automatically start a countdown to shut down.

5.2 Waveform Display Interface

Long press “ ⇌ MODE ” to enter the waveform display interface



①Measurement Parameter

②Unit

③Measurement Range

④Waveform Display:

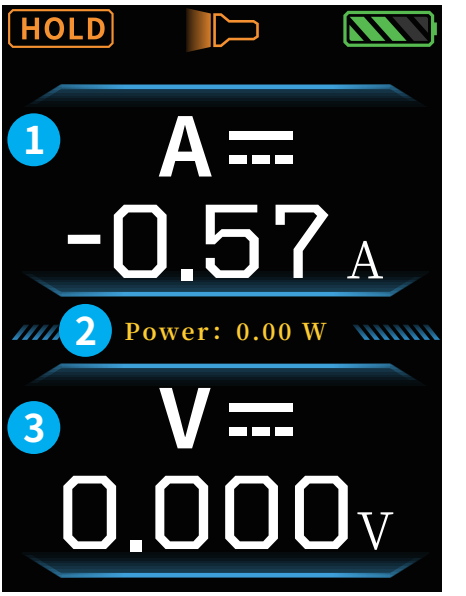
Shows the waveform of measurement data changes

⑤Data Saving: Short press SAVE MENU to save data. This section can store up to 8 sets of data. For more data, please check the historical records in the settings interface.

⑥Minimum Value **⑦Maximum Value**

5.3 Power Measurement Interface

Long press ▶ V-A to enter the power measurement interface. In this mode, AC and DC are automatically recognized.



①Current Data

②Power Calculation

③Voltage Data

5.4 Settings Interface

Long press SAVE MENU to enter the settings interface.

①Settings Options:

History Records;

System Settings;

Factory Reset;

About.

②Specific Settings:

【History Records】:

Short press SAVE MENU to save data during measurements. Up to 30 sets of data can be saved in history records.

【System Settings】:

Language: Simplified Chinese / English

Brightness: 10 levels adjustment

Temperature Unit: °C / °F

Auto Power Off: OFF / 5 min / 15 min / 30 min

【Factory Reset】: Restore factory settings

【About】: Brand information, version number

6.Firmware Upgrade

- With the device powered off, press and hold the " HOLD " and " SAVE MENU " buttons, then press the " ⏻ " button to turn it on. The screen will display “Firmware Upgrade.”
- Connect the device to a computer using a data cable. The computer will detect a "BOOT" disk.
- Copy the "firmware" or startup image to the disk.
- Press the " SAVE MENU " button to start the upgrade process.

7.Precautions

- Before using the product, check if the insulation near the casing and interfaces is damaged.
- Hold the probes by the protective grips.
- Do not touch any of the input ports when measuring a circuit.
- Disconnect the test probes from the circuit before changing the measurement range.
- When measuring DC voltages above 36V or AC voltages above 25V, exercise caution to avoid electric shock.
- Select the correct range for measurement to avoid damaging the instrument. The screen will display "OL" when the measurement exceeds the range.
- When the battery level is critically low, a popup will alert you. Charge the battery promptly to avoid affecting measurement performance. Do not use the device while it is charging.

8.Production Information

Any FNlRSl's users with any questions who comes to contact us will have our promise to get a satisfactory solution +an extra 6 months warranty to thanks for your support!

By the way, we have created an interesting community, welcome to contact FNiRSl staff to join our community.

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