

DIGITAL DC RESISTANCE METER GPS-88xx Series

- ✓ Dual-display.
- ✓ 4-Terminal Test
- ✓ Basic Accuracy $\pm 0.01\%$ / $\pm 0.05\%$
- ✓ Maximum display digits: 30000
- ✓ 10 ranges automatic and range hold
- ✓ Resistance range : $0.1\mu\Omega \sim 110M\Omega$ (GPS-8818)
- ✓ Fast-high accuracy measurement
- ✓ Test speed of 15 times / sec
- ✓ Direct display, ΔABS , $\Delta\%$, GD/NG
- ✓ Temperature compensation function (depends on model no.)
- ✓ Trigger Modes: Internal Trig, External Trig and Remote Trig.



GPS-88XX is a high-precision wide-range, high-performance microprocessor-controlled resistance meter. It has a measurement range of $0.1\mu\Omega \sim 10M\Omega$ with a maximum display number of 30000.

At a test speed of 15 times / sec, it still can guarantee high test accuracy.

It is unique to the current modes of three tests to adapt different requirements. Sorting equipment with professional features, with a group of stored data, various sorting information ring settings, can also be equipped with a Handler interface, used in automatic sorting system to complete fully automatic production line testing. There is an optional RS232C interface or IEEE-488 interface for remote control, data acquisition and analysis.

Computer remote control commands compatible with SCPI (Standard Command for Programmable Instrument Programmable Instruments standard command set) provide complete and efficient remote control and data acquisition functions.

GPS-88XX measures the high, medium and low-value resistor; various switch contact resistance; connector contact resistance; relay line package and the contact resistance, resistors, inductors, motors, deflection coil winding resistance; wire resistance, cars, boats, aircraft riveting metal resistance, printed version of the line and pore of resistance and many others.

MODELS INTRODUCTION:

Model	Resistance Range	Accuracy
GPS-8818	$0.1\mu\Omega - 110M\Omega$	0.01%
GPS-8815	$1\mu\Omega - 20M\Omega$	0.05%
GPS-8814	$1\mu\Omega - 3M\Omega$	0.05%
GPS-8812	$10\mu\Omega - 300k\Omega$	0.05%
GPS-8810	$1\mu\Omega - 30k\Omega$	0.1%
GPS-8805	$100\mu\Omega - 20M\Omega$	0.1%



DIGITAL DC RESISTANCE METER GPS-881X Series

- ✓ High brightness Vacuum Fluorescent Display window size: 98mm×58mm
- ✓ Calibration Short Zeroing
- ✓ Comparator (sorting) function: Built-in 30 sorting files and Output 3 levels (HI, IN and Low) or (GD, NG), display, beep sound.
- ✓ Direct display on the VFD displayer.
- ✓ Output the sorting results by the Handler interface, RS232C or IEEE-488 interface.
- ✓ Setup the sorting results and turn ON/OFF Beep.
- ✓ Setup GD or NG Beep and adjust VFD Brightness.
- ✓ Thermoelectric power compensation
- ✓ Small current pulse test mode, to compensate for thermoelectric power, minimizing the impact of thermoelectric power
- ✓ Keypad locked function
- ✓ Optional function:
 - Handler interface : Output: the results of comparator, EOC signal. Input: the numbers of the compare file, Trigger signal.
 - RS232C interface : Used SCPI with single 3-wire serial interface.
 - IEEE-488 interface : SCPI-compatible instruction set, bus data and commands using the ASCII code transmission, the completion of all equipment functions. Is compatible with IEEE-488.1 and IEEE-488.2.

Feature Index:

GPS-8818 :

Range	Maxim Display Value	Resolution	Fast	Medium & Slow	Test Current	Open-circuit terminal voltage	
1	10mΩ	10.000mΩ	0.1μΩ	0.2%+2dgts	0.1%+2dgts	1A	<1V
2	100mΩ	100.00mΩ	1μΩ	0.1%+2dgts	0.05%+2dgts	100mA	<1V
3	1Ω	1.0000Ω	10μΩ	0.05%+2dgts	0.02%+2dgts	100mA	<1V
4	10Ω	10.000Ω	0.1mΩ	0.05%+2dgts	0.01%+2dgts	10mA	<1V
5	100Ω	100.00Ω	1mΩ	0.02%+2dgts	0.01%+2dgts	1mA	<5V
6	1kΩ	1.000kΩ	10mΩ	0.01%+2dgts	0.01%+2dgts	1mA	<5V
7	10kΩ	10.000kΩ	0.1Ω	0.02%+2dgts	0.01%+2dgts	1mA	<5V
8	100kΩ	100.00kΩ	1Ω	0.02%+2dgts	0.02%+2dgts	0.1mA	<10V
9	1MΩ	1.0000MΩ	10Ω	0.05%+5dgts	0.05%+3dgts	0.1mA	<10V
10	10MΩ	10.000MΩ	0.1kΩ	0.1%+10dgts	0.05%+2dgts	10μA	<10V
11	100 MΩ	100.00MΩ	1kΩ	0.3%+10dgts	0.2%+10dgts	1μA	<10V

GPS-8815 :

Range	Maxim Display Value	Resolution	Fast	Medium & Slow	Test Current	Open-circuit terminal voltage	
1	30mΩ	30.000mΩ	1μΩ	0.1%±2 dgts	0.1%±2 dgts	670mA	<1V
2	300mΩ	300.00mΩ	10μΩ	0.1%±2 dgts	0.05%±1 dgt	670mA	<1V
3	3Ω	3.0000Ω	100μΩ	0.1%±2 dgts	0.05%±1 dgt	67mA	<1V
4	30Ω	30.000Ω	1mΩ	0.1%±2 dgts	0.05%±1 dgt	6.7mA	<1V
5	300Ω	300.00Ω	10mΩ	0.1%±2 dgts	0.05%±1 dgt	670uA	<5V
6	3kΩ	3.000kΩ	100mΩ	0.1%±2 dgts	0.05%±1 dgt	670uA	<5V
7	30kΩ	30.000kΩ	1Ω	0.1%±2 dgts	0.05%±1 dgt	67uA	<5V
8	300kΩ	300.00kΩ	10Ω	0.1%±2 dgts	0.05%±1 dgt	6.7uA	<5V
9	3MΩ	3.0000MΩ	100Ω	0.1%±2 dgts	0.05%±1 dgt	0.67uA	<5V
10	20MΩ	20.000MΩ	1kΩ	0.1%±3 dgts	0.1%±2 dgts		<3V



DIGITAL DC RESISTANCE METER GPS-881X Series

GPS-8814:

Range	Maxim Display Value	Resolution	Fast	Medium & Slow	Test Current	Open-circuit terminal voltage
1 30mΩ	30.000mΩ	1μΩ	0.1%	0.1%±2 dgts	670mA	<1V
2 300mΩ	300.00mΩ	10μΩ	0.1%	0.05%±1 dgt	670mA	<1V
3 3Ω	3.0000Ω	100μΩ	0.1%	0.05%±1 dgt	67mA	<1V
4 30Ω	30.000Ω	1mΩ	0.1%	0.05%±1 dgt	6.7mA	<1V
5 300Ω	300.00Ω	10mΩ	0.1%	0.05%±1 dgt	670uA	<5V
6 3kΩ	3.000kΩ	100mΩ	0.1%	0.05%±1 dgt	670uA	<5V
7 30kΩ	30.000kΩ	1Ω	0.1%	0.05%±1 dgt	67uA	<5V
8 300kΩ	300.00kΩ	10Ω	0.1%	0.05%±1 dgt	6.7uA	<5V
9 3MΩ	3.0000MΩ	100Ω	0.1%	0.05%±1 dgt	0.67uA	<5V

GPS-8812:

Range	Maxim Display Value	Resolution	Fast	Medium & Slow	Test Current	Open-circuit terminal voltage
1 300mΩ	300.000mΩ	10μΩ	0.05%+4 dgts	0.05%+2 dgts	670mA	<1V
2 3Ω	3.0000Ω	100μΩ	0.05%+4 dgts	0.05%+2 dgts	67mA	<1V
3 30Ω	30.000Ω	1mΩ	0.05%+4 dgts	0.05%+2 dgts	6.7mA	<1V
4 300Ω	300.00Ω	10mΩ	0.05%+4 dgts	0.05%+2 dgts	670uA	<5V
5 3kΩ	3.000kΩ	100mΩ	0.05%+4 dgts	0.05%+2 dgts	670uA	<5V
6 30kΩ	30.000kΩ	1Ω	0.05%+4 dgts	0.05%+2 dgts	67uA	<5V
7 300kΩ	300.00kΩ	10Ω	0.05%+6 dgts	0.05%+3 dgts	6.7uA	<5V

GPS-8810:

Range	Maxim Display Value	Resolution	Fast	Medium & Slow	Test Current	Open-circuit terminal voltage
1 30mΩ	30.000mΩ	1μΩ	0.1%+4 dgts	0.1%+2 dgts	670mA	<1V
2 300mΩ	300.00mΩ	10μΩ	0.1%+4 dgts	0.1%+2 dgts	670mA	<1V
3 3Ω	3.0000Ω	100μΩ	0.1%+4 dgts	0.1%+2 dgts	67mA	<1V
4 30Ω	30.000Ω	1mΩ	0.1%+4 dgts	0.1%+2 dgts	6.7mA	<1V
5 300Ω	300.00Ω	10mΩ	0.1%+4 dgts	0.1%+2 dgts	670uA	<5V
6 3kΩ	3.000kΩ	100mΩ	0.1%+4 dgts	0.1%+2 dgts	670uA	<5V
7 30kΩ	30.000kΩ	1Ω	0.1%+4 dgts	0.1%+2 dgts	67uA	<5V

GPS-8805:

Range	Maxim Display Value	Resolution	Fast	Medium & Slow	Test Current	Open-circuit terminal voltage
1 30Ω	30.000Ω	1mΩ	0.1%	0.05%±1 dgt	6.7mA	<1V
2 300Ω	300.00Ω	10mΩ	0.1%	0.05%±1 dgt	670uA	<5V
3 3kΩ	3.000kΩ	100mΩ	0.1%	0.05%±1 dgt	670uA	<5V
4 30kΩ	30.000kΩ	1Ω	0.1%	0.05%±1 dgt	67uA	<5V
5 300kΩ	300.00kΩ	10Ω	0.1%	0.05%±1 dgt	6.7uA	<5V
6 3MΩ	3.0000MΩ	100Ω	0.1%	0.05%±1 dgt	0.67uA	<5V
7 20MΩ	20.000MΩ	1kΩ	0.1%±3dgts	0.1%±2 dgts	NA	<3V



DIGITAL DC RESISTANCE METER GPS-881X Series

General Specification

Display : Vacuum Fluorescent Display, Size:98mmx55mm.
 Maximum Display Value: 104000(GPS-8818) , other models :30000 counts
 Trigger Mode : Internal, External and Remote.
 Range : Automatic and Range Hold
 Correction : Short Zeroing
 Comparator : Output NG-LO, GD-IN, NG-HI, built-in 30 sorting files.
 Beep : GD, NG, Open/Close Function and Adjust volume.

Test Terminal : 4 terminals (2 tester terminals & 2 device terminals), Outside the shielding to terminal.

Interface : Handler interface, RS232 interface, GPIB(IEEE488)interface.
 Programmed Language : SCPI

Environment : Index : T & H: 15°C~35°C, ≤80% RH
 Operating : T & H: 10°C~40°C, 10~90% RH
 Storage : T & H: 0°C~50°C, 10~90% RH

Power : 198V ~ 252VAC, 48.5Hz ~ 52.5Hz
 Fuse : 1A, Slow-Blow
 Consumption : ≤15VA
 Weight : 3.5kg Net

Included Accessories : User's Manual, Kelvin Test Leads, AC Power Cord

	GPS-8818	GPS-8815	GPS-8814	GPS-8812	GPS-8810	GPS-8805
Resistance Range	0.1μΩ - 110MΩ	1μΩ - 20MΩ	1μΩ - 3MΩ	10μΩ - 300kΩ	1μΩ - 30kΩ	100μΩ - 20MΩ
Basic Accuracy	0.01%	30mΩ: 0.1% 20MΩ: 0.1% Others : 0.05%	30mΩ: 0.1% Others : 0.05%	0.05%	0.1%	0.1%
Range	11 Ranges 10mΩ - 100MΩ	10 Ranges 30mΩ-20MΩ	9 Ranges 30mΩ-3MΩ	7 Ranges 300mΩ-300kΩ	7 Ranges 30mΩ-30kΩ	8 Ranges 3Ω-20MΩ
Trigger Mode	Internal/Manual/ External/Remote			Internal/Manual	Internal/Manual	Internal/Manual
Test Current Mode	High/Low/Plus				High	High
Comparator Record File	30 Files				1 File	1 File
Temperature Relative Function	Standard		Optional		N/A	
Interface	IEEE488(Optional) RS232C(Standard) HANDLER(Standard)			IEEE488(Optional) RS232C(Optional) HANDLER(Optional)		
Comparator	Hi/IN/L0/GD/NG					
Range Mode	Automatic/Range Hold					
Display	104000 counts	30000 digitals (4-2/3) VFD Display				
Beeper	GD/NG/OFF, adjust the volume					
Correction	Short Zeroing					
Test Terminal	4-terminals Test					