



GPS-8815A

Portable DC Low Resistance Tester



KEY FEATURES

- 0.001 mΩ to 300.0 kΩ
- 1 μΩ resolution
- Four-wire Kelvin measurement
- Test current 1 A or more
- 500 groups, exported over USB
- IP54 · CAT III 600 V

One Microhm, In Your Hand.

A handheld micro-ohmmeter for the joints that carry current. Switch and contactor contacts, transformer and motor windings, cable and busbar connections, and the bonding between metalwork that has to be at the same potential.

Measurement is four-wire Kelvin throughout, which is what makes a reading of one microhm mean anything: the test leads and their contact resistance sit outside the measurement rather than inside it.

The range runs from 0.001 mΩ to 300.0 kΩ, so the same instrument that resolves a microhm across a bolted joint will also read a winding of several kilohms. Test current is at least 1 A with an open-circuit voltage no higher than 4.2 V.

It is built to be carried and used repeatedly. The ports are protected against overload, the battery is rechargeable, and 500 readings are stored on the instrument for upload over USB.

IDEAL FOR

- Switch and contactor contact resistance
- Transformer and motor winding resistance
- Cable, busbar and joint connections
- Equipotential bonding verification
- Lightning protection and earthing bonds

MEASUREMENT RANGES

Range	Accuracy	Resolution	Notes
DC resistance · four-wire Kelvin measurement throughout			
0.001 mΩ to 300.0 kΩ	±0.1% FS	1 μΩ	Resolution quoted at the bottom of the range
Test conditions			
1 A or greater	—	—	Short-circuit test current
4.2 V or less	—	—	Open-circuit voltage
About 2 per second	—	—	Measurement rate

Accuracy is specified as a percentage of full scale rather than of reading. Four-wire Kelvin connection puts the test leads and their contact resistance outside the measurement, which is what allows a resolution of one microhm; a two-wire reading at this level would be mostly lead. The inputs are protected against overload.



WHAT'S IN THE BOX

- GPS-8815A tester
- Kelvin test leads, two, 60 cm, red and black
- USB communication lead
- PC monitoring software on CD
- Battery charger
- Instrument case, manual and warranty certificate

TEST LEADS · Kelvin leads at 60 cm, one red and one black. Each carries a separate current and sense connection, which is what keeps the lead resistance out of the reading.

GENERAL SPECIFICATIONS

Code	Item	Part Number
GPS-8815A	Portable DC low resistance tester, 0.001 mΩ to 300.0 kΩ, four-wire Kelvin	808815

MEASURES

DC resistance from 0.001 mΩ to 300.0 kΩ by four-wire Kelvin measurement · also reads AC and DC voltage

ACCURACY

±0.1% of full scale

MEASUREMENT RATE

About two readings per second, continuous

MEMORY

500 groups held on the instrument

PROTECTION

Overload protection on the inputs, guarding against a misconnection damaging the instrument · IP54

SAFETY

IEC 61010-1 · CAT III 600 V · pollution degree 2

TEST LEADS

Kelvin leads, about 60 cm, one red and one black

RESOLUTION

1 μΩ at the bottom of the range

TEST CURRENT

1 A or greater, short circuit · open-circuit voltage 4.2 V or less

DISPLAY

Backlit LCD · English interface · MEM indication when storing, FULL when the memory is full

INTERFACE

Micro USB to the supplied PC software, which reads, reviews, saves and reports stored data

POWER

Rechargeable 3.7 V 2500 mAh lithium battery · consumption 8 W or less · shuts down after about 15 minutes idle

DIMENSIONS

187 × 119 × 50 mm

WARRANTY

1 year, subject to product registration with GPS LTD · service and calibration available