

## S480 4 Terminal Earth Tester



- High resolution of 1mΩ, ideal for ground systems
- Strong anti-interference capability
- Versatile test modes and applications
- 4 terminal method
- Accurate results
- Testing range: 0.000Ω~200kΩ
- Automatic range selection
- Resolution: 0.001Ω
- Soil resistivity measurement

### DESCRIPTION

S480 4 Terminal Earth Tester is a robust and compact automatic earth (ground) test instrument designed to measure earth electrode resistance and soil resistivity. It has several test modes but excels at the 4 terminal method, which eliminates both the contact resistance and the wire resistance. The instrument is also installed with the Fast Fourier Transform and Automatic Frequency Control technology, making it high in anti-interference capability. These technologies alongside the 4 terminal method, results produce is of the highest accuracy.

Soil resistivity measurements are often used for establishing the optimal electrode design and site for a grounding system, or it is also often used in geological or archaeological investigations.

### APPLICATION


S480 is widely used in industries such as power utility, geology, construction, lightning protection, etc. Its high resolution of 1mΩ along with its comprehensive functions makes it a versatile instrument that can be used across numerous industries.

### SPECIFICATIONS

<b>Functions</b>	Grounding resistance, soil resistivity test; grounding voltage, AC voltage test
<b>Power</b>	11.1V DC, 2600mAh, rechargeable Li-battery
<b>Backlight Brightness</b>	Adjustable backlight, suitable for dark environments
<b>Measure Mode</b>	Grounding Resistance (4 terminal, 3 terminal and 2 terminal), soil resistivity
<b>Measuring Method</b>	Earth Resistance: pole-changing method, rated current: 20mA Max Soil Resistivity: 4-pole measurement (Wenner method) Earth Voltage Test: average rectification (between P(S)-ES)
<b>Measurable Range</b>	2/3/4 terminal method for measuring ground resistance (R): 0.000Ω ~ 200.0kΩ Soil resistivity (ρ): 0.000Ωm ~ 9999kΩm Grounding voltage: AC 0.001V ~ 600.0V (50Hz/60Hz)
<b>Max. Resolution</b>	2/3/4 terminal method for measuring ground resistance (R): 0.001Ω Soil resistivity (ρ): 0.01Ωm Grounding voltage: 0.001V
<b>Accuracy</b>	2/3/4 terminal method for measuring ground resistance (R): 1.0.000Ω ~ 10.00kΩ: ±2%rdg±5dgt 2.10.0K~100.0kΩ: ±3%rdg±5dgt 3.100.0K~200.0kΩ: ±3.5%rdg±5dgt Note: if the interference is more than 5v, then the accuracy decreases ≤± 5%-RDG ±5dgt Soil resistivity (ρ): depends on R's accuracy (ρ=2πaR (a:1 m ~ 100m); π=3.14) Grounding voltage: ±2%rdg±5dgt (50Hz/60Hz)

<b>Measured Voltage Waveform</b>	Sine wave
<b>Measuring Frequency</b>	412Hz、825Hz、1280Hz (automatic selection)
<b>Short Circuit Current</b>	AC 20mA max
<b>Open Circuit Voltage</b>	AC 90V max
<b>Electrode Spacing</b>	1m~100m
<b>Measurement Range</b>	Grounding resistance: 0.000Ω~200kΩ, The measurement range will be automatically adjusted based on the resistance Soil resistivity: 0.00Ωm~9999kΩm, The measurement range will be automatically adjusted based on the resistance
<b>LCD</b>	6-bit LCD display, white screen backlight
<b>LCD Size</b>	140mm×85mm
<b>LCD Display Size</b>	123mm×66mm
<b>Test Indication</b>	During testing, a LED light will flash and there will be a bar that indicates the progress. There is also a countdown display
<b>Dimensions</b>	Base station: LWH 320mm×275mm×145mm Packaging: LWH 355mm×235mm×325mm
<b>Standard Test Leads</b>	Total 4 pcs: red 15m, black 15m, yellow 10m, green 10m, each 1 pc
<b>2T Method Test Leads</b>	Total 2 pcs: red 1.6m, black 1.6m, each 1 pc
<b>Auxiliary Grounding Rod</b>	4 pcs: approx. φ10mm×200mm
<b>Sampling Rate</b>	Ground voltage: approx. 2 samples/sec Ground resistance: 1 sample at 7seconds interval Soil resistivity: 1 sample at 7 seconds interval
<b>Number of Measurements</b>	5000 times and above ( for short circuit test, after each measurement, it will stop for 30 seconds before the next measurement )
<b>Voltage of Conductor</b>	Below AC 600V
<b>Communication Port</b>	With a USB port, stored data can be uploaded to the computer for saving or printing
<b>Communication Wire</b>	USB wire 1 pc, length: 1.5m
<b>Data Hold</b>	Press HOLD to hold and save the data
<b>Save Data</b>	Up to 300 sets of data can be saved, "HOLD" indicates data is saved as well. A "FULL" symbol indicates that the storage is full
<b>View Data</b>	The "READ" symbol indicates that it is showing saved data
<b>Overload Warning</b>	When the measured value exceeds the measurable range of the instrument, the "OL" symbol will be displayed
<b>Interference Detection</b>	Automatic recognition of interference signal. "NOISE" symbol will be displayed when interference voltage exceeds 5V
<b>Alarm Warning</b>	When the measured value exceeds the pre-set value, an alarm "beep" will be emitted
<b>Low Battery Warning</b>	When the battery voltage is low, the low battery sign will be displayed, please charge the battery when possible
<b>Automatic Shutdown</b>	The instrument will shut down automatically after standing by for 15 minutes
<b>Working Current</b>	Standby: 25mA max (backlight off) Backlight: 25mA max (only backlight consumption) Measuring:150mA max (backlight off)
<b>Weight</b>	Host: approx. 2.7kg (including battery) Total: approx. 6.41kg (including package)
<b>Tool Box</b>	Industrial toolbox, able to withstand 200kg of pressure
<b>Ideal Working Conditions</b>	-10℃~40℃; below 80%RH
<b>Ideal Storage Conditions</b>	-20℃~60℃; below 70%RH
<b>Overload Protection Threshold</b>	When measuring grounding resistance: C(H)-E、P(S)-ES between each port AC 600V
<b>Insulation Resistance</b>	20MΩ above (between circuit and housing 500V)
<b>Withstand Voltage</b>	AC 3700V/RMS (between circuit and housing)
<b>Electromagnetic Properties</b>	IEC61326(EMC)
<b>Safety Standards</b>	IEC61010-1(CAT III 300V, CAT IV 150V, pollution class 2); IEC61010-031; IEC61557-1(ground resistance); IEC61557-5(soil resistivity); JJG 366-2004(ground resistance meter)

**ACCESSORIES & ORDER DATA**

Description	Order Code	Description	Order Code
S480 4 Terminal Earth tester, 1 pc	S480	<b>Included accessories for S480</b>	
		Tool box, 1pc	
		Auxiliary grounding rod, 4 pcs	
		Standard Test Leads, 4pcs (red 15m; yellow 10m; green 10m; black 15m)	
		2T test leads: 2 pcs (red 1.6m; black 1.6m)	
		USB communication wire, 1pc	
		Charger and wire, 1 set	
		Data software (E-copy), 1 pc	
		User manual, Warranty card, Certificate of Conformity, 1 copy of each	

**SALES OFFICE**

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