FR3010E Ground Resistance Soil Resistivity Tester



Ⅰ.Features

The soil resistivity tester, also known as a four-wire ground tester or a precision ground resistance tester, is a commonly used instrument for testing and measuring ground resistance. It features a large LCD gray-white screen with backlight display and microprocessor technology, meeting the requirements for testing two-wire, three-wire, and four-wire resistances as well as soil resistivity. This instrument is suitable for telecommunications, power, meteorology, server rooms, oil fields, power distribution lines, tower transmission lines, gas stations, factory grounding grids, and lightning rods. The tester is known for its accuracy, speed, simplicity, and stability.

The soil resistivity tester is controlled by a microprocessor and can automatically detect the connection status of each interface, as well as the interference voltage and frequency of the grounding network. It also has the function of testing the resistance value of auxiliary grounding electrodes. It can store up to 500 sets of data, with a resistivity measurement range of 0.01Ω~30.00kΩ and a grounding voltage range of 0.05~600V.

Series model differences

Model	Functions
FR3010E	Three, four and two wire AC grounding resistance, soil resistivity, AC voltage

Ⅱ.Technical specifications

Grounding resistance of 2, 3 and 4-wire	0.00Ω～30.00kΩ	Precision: ± 2%rdg ± 3dgt	Resolution:0.01Ω
Soil resistivity	0.00Ωm～9999kΩm	Precision: ρ=2πaR	Resolution:0.01Ωm
Voltage to ground	0.05V～600V	Precision:±1.5%rdg±3dgt	Resolution:0.01V
Base condition	23℃±5℃, Under 75%rh		
Power	DC 9V 6 LR14 dry battery continuous standby more than 100 hours		
Backlight	Controllable backlight, suitable for use in dim places		
Test waveform and frequency	Sine wave 128Hz		
Auto shut off	"APO" indicates that the machine will automatically shut down after 15 minutes (default) of startup. The shutdown time can be customized		
Measurement method	Precision four-wire, three-wire measurement, simple two-wire, average rectification		
Alarm function	An alarm is issued when the measured value exceeds the alarm set value		
Screen size	111mm×68mm		
Range of electrode spacing	0.1m～100.0m		
Measure time	Ground voltage: about 3 times per second Ground resistance, soil resistivity: about 7 seconds/ time		
Data storage	500 Group		
Overload	Measure the grounding resistance: AC 280V/3 seconds between H-E and S-ES ports		
Auxiliary	4 rod ： Φ10mm×200mm		

grounding bar	
Auxiliary grounding test	It has auxiliary grounding resistance value test function, 0.00kΩ ~30.00kΩ
Power dissipation	Standby: 90mA Max (backlight off) 95mA Max (backlight on)
	Measurement: 190mA Max (backlight off) 195mA Max (backlight on)
Quality	Instrument: 1100g (including battery)
	Test cable: 1000g (including simple test line)
Suitable for safety	IEC61010-1(CAT Ⅲ 600V、 degree of pollution 2); IEC61557-1(ground resistance); IEC61557-5(Soil resistivity);

Ⅲ.Packing list

Instrument	1set
bag	1pcs
Auxiliary grounding bar	4rods
Test cable	4pcs
Simple test cable	2pcs
1.5V batteries	6pcs
User manual warranty certificate	1pcs

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