

# FR3010 Digital Ground Resistance Tester (Simple)




## I. Product Introduction

FR3010 digital grounding resistance tester, also name the three-wire grounding resistance tester, grounding resistance meter, etc., it is a commonly used meter for measuring grounding resistance. It uses a large LCD gray screen backlight display and microprocessor technology to meet the requirements of two-wire and three-wire test resistance. It is a new generation of grounding measurement instrument that replaces traditional rocking table measurements. Suitable for telecommunications, electricity, meteorology, computer rooms, oil fields, power distribution lines, iron tower transmission lines, gas stations, factory grounding networks, lightning rods and so on. Instrument testing is precise, fast, simple, stable and reliable.

FR3010 digital grounding resistance tester is controlled by a microprocessor, it's large LCD gray screen display resistance value at a glance. It can store 500 sets of data at the same time, resistance measurement range  $0.01\Omega \sim 3000\Omega$ , grounding voltage range:  $0 \sim 600V$ , with the value of maintaining and alarm tips and other functions.

## II. Technical Specification

<b>Ground resistance Range</b>	$0.01\Omega - 3000\Omega$ ; Accuracy: $\pm 1.5\%rdg \pm 3dgt$
<b>Ground resistance resolution</b>	$0.01\Omega$
<b>Ground voltage Range</b>	$0.01V - 600V$ AC ; Accuracy: $\pm 1.5\%rdg \pm 3dgt$
<b>Ground voltage resolution</b>	$0.01V$
<b>Base Condition</b>	$23C \pm 5^{\circ}C$ , below 75% rh (Auxiliary grounding resistance $100\Omega \pm 5\%$ , ground voltage $< 10V$ )
<b>Function</b>	Ground resistance test, ground voltage test, low value resistance test
<b>Power Supply</b>	1.5V (LR14) Alkaline Battery 6 Section
<b>Backlight</b>	Controllable gray screen backlight, suitable for use in dim places
<b>Measurement Mode</b>	Precise three-wire measurement, simple two-wire measurement
<b>Measurement Method</b>	Grounding resistance: rated current change pole method, 128Hz; ground voltage: average value rectification
<b>Test current</b>	$> 20mA$ (sine wave)
<b>Wire Resistance Check</b>	Avoiding the errors caused by the test line not being fully inserted into the instrument interface or being in poor contact or replaced the extended test line by the user, to make the ground resistance measurement more accurate
<b>Display mode</b>	4-bit large LCD display, gray screen backlight
<b>Measure indication</b>	LED flashing indicator during measurement, LCD countdown display

<b>LCD Dimension</b>	108mm×65mm
<b>Meter Dimension</b>	L/W/H: 240mm×188mm×85mm
<b>Test Line Length</b>	3 strips: Red 15m, Yellow 10m, Green 5m each 1 strip
<b>Simple Test Line</b>	2 strips: yellow 1.5m, green 1.5m each 1 strip
<b>Auxiliary Grounding Rod</b>	2 roots
<b>Measure Time</b>	Ground voltage: about 3times/second; Grounding resistance: about 5 times/second
<b>Line Voltage</b>	Measure ground voltage: below AC 600V
<b>Data Storage</b>	500 groups, flashing "FULL" symbol indicates that the storage is full
<b>Data Review</b>	"MR" symbol indication when reviewing data
<b>Overflow Display</b>	Exceed measurement range overflow function: "OL" symbol display
<b>Alarm Function</b>	Alarm when the measured value exceeds the alarm setting value
<b>Battery Voltage</b>	Insufficient battery voltage, showing low battery symbol 
<b>Automatic shut-down</b>	"APO" instruction, automatic shutdown after 15 minutes boot
<b>Power Consumption</b>	Standby: 40 mA Max (backlight off),
	turn on backlight: 43 mA Max,
	measure: 120 mA Max (backlight off)
<b>Weight</b>	Instrument: 1230g (including battery),
	test line: 610g (including simple test line),
	auxiliary grounding rod 360g (2 roots),
	instrument bag: 271g
<b>Working Temperature and Humidity</b>	-10°C~40°C; below 80% rh
<b>Storage Temperature and Humidity</b>	-20°C~60°C; below 70% rh
<b>Overload Protection</b>	Grounding resistance: AC280V/3 seconds between E-H and E-S ports
<b>Insulation Resistance</b>	Above 10MQ (500V between circuit and case)
<b>Pressure Resistance</b>	AC 3700V/rms(between circuit and outside)
<b>Electromagnetic Properties</b>	EC61010-4-3, radio frequency electromagnetic field ≤1V/m
<b>Suitable for Safety Regulations</b>	IEC61010-1, IEC1010-2-31, IEC61557-1, 5、 IEC60529 (IP54), pollution degree 2、CAT III 300V

### III、Accessories

<b>Instrument</b>	1PC
<b>Instrument bag</b>	1PC
<b>Auxiliary rob</b>	2PCS
<b>Test line</b>	3PCS (red 15m, yellow 10m, green 5m each one)
<b>Simple test line</b>	2PCS(yellow 1.5m, green 1.5m each one)
<b>Battery</b>	1.5V alkaline battery 6 sections
<b>Charger</b>	1PC
<b>Manual, certificate</b>	1SET



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