

FR3010 Digital Earth Resistance Tester




I . Characteristic

FR3010 digital grounding resistance tester, also known as three-wire grounding resistance tester, grounding resistance meter, etc., is a common instrument for testing and measuring grounding resistance commonly used instruments. It adopts large LCD gray and white screen backlight display and microprocessor technology to meet the two-wire and three-wire test. The resistance requirement is a new generation of grounding measuring instrument that replaces the traditional shaking table measurement. It is suitable for telecommunications, electricity, meteorology, computer rooms, oil fields, power distribution lines, tower transmission lines, gas stations, factory grounding grids, lightning rods, etc. The instrument test is accurate, fast, simple, stable and reliable.

The FR3010 digital grounding resistance tester is controlled by a microprocessor, and the large LCD gray and white screen displays the resistance value at a glance. Store 500 groups of data at the same time, resistance measurement range: $0.01\Omega \sim 3000\Omega$, ground voltage range: $0 \sim 600V$. It has functions such as value hold and alarm prompt.

II . Range&Technical Specification

Ground resistance range	$0.01\Omega \sim 3000\Omega$	Accuracy $\pm 1.5\%$ rdg ± 3 dgt
Ground Resistance Resolution	0.01Ω	
Ground voltage range	$0 \sim 600V$ AC	Accuracy $\pm 1.5\%$ rdg ± 3 dgt
Ground voltage resolution	$0.01V$	
Baseline conditions	$23^{\circ}C \pm 5^{\circ}C$, below 75%rh (auxiliary grounding resistance $100\Omega \pm 5\%$, voltage to ground $<10V$)	

Features	Earth resistance measurement, ground voltage measurement, low value resistance measurement
Power supply	1.5V (LR14) alkaline batteries 6
Backlight	Controllable gray and white screen backlight, suitable for use in dark places
Measurement method	Precision three-wire measurement, simple two-wire measurement
Measurement methods	Grounding resistance: rated current pole changing method, 128Hz; Voltage to ground: average value rectification
Test current	>20mA (sine wave)
Wire resistance check	Avoid errors caused by the test wire not fully inserted into the instrument interface or poor contact or the user replacing the extended test wire, etc., so that the grounding resistance measurement is more accurate.
Display mode	4-digit large LCD display, gray and white screen backlight
Measurement instructions	LED flashing indication during measurement, LCD countdown display
LCD size	108mm×65mm
Meter size	240mm (L)×188mm (W)×85mm (H)
Test lead length	3 pieces: 15m for red, 10m for yellow, 1 piece for each of 5m green
Simple test lead	2: Yellow 1.5m, 1 green 1.5m each
Auxiliary ground rod	2 roots
Measure time	Voltage to ground: about 3 times/second; grounding resistance: about 5 seconds/time
Line voltage	Measuring voltage to ground: measurement below AC 600V
Data storage	500 groups, flashing "FULL" symbol indicates that the storage is full
Data access	Data access function: "MR" symbol display
Overflow display	Overrange overflow function: "OL" symbol display
Alarm function	When the measured value exceeds the alarm setting value, an alarm prompt will be issued
Battery voltage	The battery voltage is insufficient, and the low battery symbol "  " is displayed.
Automatic shut-down	The meter shuts down after about 15 minutes of inactivity
Power consumption	Standby: 40mA Max (backlight off)
	Turn on the backlight: 43mA Max
	Measurement: 120mA Max (backlight off)
Quality	Meter: 1230g (including battery)
	Test line: 610g (including simple test line)
	Auxiliary ground rod: 360g (2 pieces)
	Gauge bag: 271g
Working temperature and humidity	-10℃～40℃; below 80%rh

Storage temperature and humidity	-20°C ~ 60°C; below 70%rh
Overload protection	Grounding resistance: AC 280V/3 seconds between E-H and E-S ports
Insulation resistance	10MΩ or more (500V between circuit and case)
Pressure resistance	AC 3700V/rms (between circuit and case)
Electromagnetic properties	IEC61010-4-3, radio frequency electromagnetic field ≤ 1V/m
Suitable for safety regulations	IEC61010-1, IEC1010-2-31, IEC61557-1, 5, IEC60529 (IP54), pollution, etc. 2, CAT III 300V

III. Packing List

Meter	1 set
Instrument bag	1
Auxiliary ground rod	2 roots
Test line	3 strips (red 15m, yellow 10m, green 5m each)
Simple test lead	2 (yellow 1.5m, green 1.5m each)
Battery	6 1.5V alkaline batteries
Manual, Warranty	1 set

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