

ES3050 Digital Equipotential Tester



I . Characteristic

ES3050 digital equipotential tester, also known as micro-ohmmeter, ohmmeter, and DC grounding resistance tester, adopts the most microprocessor technology and four-wire method for testing, which is safe, precise and reliable. It is a special instrument for detecting the equipotential bonding quality between metal components of equipment shells, lightning protection belts, ground beams, structures, cabinets, steel bars, water pipes, windows, guardrails, radiators, assembly lines, etc. The resistance of the connecting conductor between the ground and the ground, the DC resistance of the transformer, and the contact resistance of switches, socket contacts, coils, metal wires, welding points and other low-value resistances. Widely used in telecommunications, electricity, meteorology, computer rooms, oil fields, power distribution lines, tower transmission lines, gas stations, factory grounding grids, lightning rods, etc. It also has the function of measuring DC voltage and AC voltage.

ES3050 digital equipotential tester consists of host, monitoring software, test line, communication line, etc. The large-screen LCD display of the host is clear at a glance. Can store 500 sets of data, resistance measurement range: $0.0001\Omega \sim 30K\Omega$, DC voltage range: $0.0 \sim 1000V$, AC voltage range: $0.0 \sim 750V$. The monitoring software has online real-time monitoring and historical query functions, dynamic display, alarm value setting and alarm indication functions, and historical data reading, viewing, saving, reporting, printing and other functions.

II . Technical Specification

Features	Equipotential bonding resistance test between metal components, low-value resistance test, resistance test of connecting conductors between ground grids, contact resistance test, etc.
DC resistance range	$0.0001 \Omega \sim 30.00K \Omega$ Accuracy $\pm 1\%rdg \pm 5dgt$
Resistor Resolution	0.0001Ω

Detection method	Four-wire method test
Test current	$\geq 1\text{A}$
Open circuit voltage	$\leq 7\text{V}$
Power	Measuring power $\leq 15\text{W}$
DC voltage range	0.0V~1000V DC Accuracy $\pm 1.5\% \text{rdg} \pm 5 \text{dgt}$
DC voltage resolution	0.1V
AC voltage range	0.0V~750V AC Accuracy $\pm 1.5\% \text{rdg} \pm 3 \text{dgt}$
AC Voltage Resolution	0.1V
Power supply	DC 6V 4.5Ah large-capacity battery, continuous standby for more than 100 hours
Backlight	Controllable gray and white screen backlight, suitable for use in dark places
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 \times 65mm
Meter size	Length, width and height: 277.2mm \times 227.5mm \times 153mm
Test lead length	Red 5m, 2 black 5m each
Measure time	Resistance test: about 3 seconds/time; voltage test: about 2 times/second
USB interface	With USB interface, software monitoring, storage data can be uploaded to the computer, save and print
communication line	1 USB communication line
Data storage	500 groups, "MEM" storage indication, displaying "FULL" symbol means 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	Real-time display of battery power, reminding to charge in time when the battery voltage is low
Automatic shut-down	The meter shuts down after about 15 minutes of inactivity
Power consumption	Standby: 30mA Max (backlight off)
	Turn on the backlight: 43mA Max
	Measurement: 2A Max (backlight off)
Quality	Meter: 2397g (including battery)
	Test line: 850g (including simple test line)
	Instrument box: 1200g
Working temperature and humidity	-10°C ~ 40°C; below 80%rh
Storage temperature and humidity	-20°C ~ 60°C; below 70%rh
Overload protection	Between C1-C2 P1-P2 ports AC 280V/3 seconds

Insulation resistance	10M Ω 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 \leq 1V/m
Suitable for safety regulations	IEC61010-1, CAT III 600V, pollution level 2, JJG724-1991 "Verification Regulations for DC Digital Ohmmeter", JJG166-1993 "Verification Regulations for DC Resistors", "DL/T967-2005 Loop Resistance Tester and DC Resistance Fast Tester Verification Regulations"

III. Packing List

Meter	1 set
Instrument box	1
Monitoring software CD	1 pc
USB communication cable	1
Test line	4 (red 5m, 2 black 5m each)
Charger	1
Manual, Warranty	1 set

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