

DIGITAL EARTH TESTER DET1620


APPLICATION: DET-1620 Earth Resistance Soil Resistivity Tester is specially designed and manufactured for on-site measurement of grounding resistance, soil resistivity, grounding voltage, grounding line leakage current, alternating current, and DC resistance. Apply digital processing technology, precision 4-wire method, 3-wire method and simple 2-wire method to measure grounding resistance; Adopt FFT (fast Fourier transform) technology, AFC (automatic frequency control) technology, automatic identification of interference and selection of measurement frequency, to minimize the impact of interference, provide more accurate grounding resistance value. With unique anti-interference ability and environmental adaptability, high repeated test consistency, ensuring high precision, high stability and high reliability for a long-term measurement.

SPECIFICATION:

Influence Constant	Base Condition	Working Conditions	Remark
Ambient Temp	23°C±1°C	-10°C~40°C	----
Ambient Humidity	40%~60%	< 80%	----
Working Voltage	9V±0.1V	9V±1.5V	---
Auxiliary Earth Resistance Value	< 100Ω	< 30kΩ	rC, rP
Interference Voltage	Non	< 20V	----
Interference Current	Non	< 2A	
Electrode Distance of measuring R	a>5d	a>5d	----
Electrode Distance of measuring ρ	a>20h	a>20h	----



Function	2/3/4-pole measurement for earth resistance, soil resistivity, earth voltage
Power Supply	DC 9V(Alkaline dry battery LR14 1.5VX 6 PCS)
Measurement Range	Earth Resistance: 0.00Ω~30.00kΩ
	Soil Resistivity: 0.00Ωm~9000kΩm
	Earth Voltage: 0V~600V
Measurement Mode	Precise 4-pole measurement, 3-pole measurement, simple 2-pole measurement of earth resistance
Measurement Method	Earth Resistance: rated current change-pole method, test current 20mA Max
	Soil Resistivity: 4-pole method (Wenner method)
	Earth Voltage: average rectification(between P(S)-ES)
Test Frequency	128Hz/111Hz/105Hz/94Hz(AFC)

Test Current	>20mA (sine wave)
Open-circuit Test Current	AC 40V max
Test Voltage Wave	Sine wave
Electrode Distance Range	Can be set 1m~100m
Shift	Earth resistance: 0.00Ω~30.00kΩ automatic shift
	Soil Resistivity: 0.00Ωm~9000kΩm automatic shift
Backlight	Controllable white screen backlight, suitable for dim places
Display Mode	4-digital super-large LCD display, white screen backlight
Measurement Indication	During measurement, LED flash indicator, LCD count down display, progress bar indicator
LCD Frame Dimension	128mmX75mm
LCD Display Dimension	124mmX67mm
Meter Dimension	212mm(L)X175mm(W)X85mm(H)
Measurement Time	Earth Voltage: about 3 times/second
	Earth resistance, soil resistivity: about 15 seconds/time
Measuring Times	Over 5000 times (Short-circuit test, interval time should be at least 30 seconds)
Line Voltage	below AC 600V measure
Communication Interface	USB interface, software monitoring, storage data can be uploaded to computer, saved or printed.
Communication Cable	1PCS USB communication cable, length 1.5m
Data Storage	300 groups, "MEM" symbol storage indicator, flash display "FULL" symbol indicate storage full
Data Hold	Data hold function: "HOLD" symbol display
Data Read	Data read function: "READ" symbol display
Overflow Display	Over range overflow function: "OL" symbol display
Interference Test	Recognize interference signal automatically, "NOISE" symbol display when interference voltage exceed 5V
Auxiliary Ground Test	With auxiliary earth resistance test function, 0.00KΩ~30KΩ (100R+rC<50kΩ, 100R+rP<50kΩ)
Alarm Function	Measurement value exceeds alarm setting value, will "DU--DU--DU--" alarm hint
Battery Voltage	While battery voltage decreases to around 7.5V, will display battery voltage low symbol "  ", and reminding to replace the battery
Working Current	Standby: about 20mA (Backlight close)

	Boot up and open backlight: about 45mA (25mA backlight close)
	Measurement: about 100mA (Backlight close)
Weight	Tester: 1330g
	Total weight: about 2.15kg (include package)
Working Temperature & Humidity	-10°C~40°C, below 80%RH
Storage temperature & humidity	-20°C~60°C, below 70%RH
Overload Protection	Measuring earth resistance: between each interfaces of C(H)-E, P(S)-ES, AC 280V/3 seconds
Insulation Resistance	Over 20MΩ (between circuit and enclosure it is 500V)
Withstand Voltage	AC 3700V/rms (Between circuit and enclosure)
Electromagnetic Features	IEC61326(EMC)
Suitable Safety Standard	IEC61010-1 (CAT III 300V, CAT IV 150V, Pollution 2), IEC61010-031, IEC61557-1 (Earth resistance), IEC61557-5 (Soil resistivity), JJG 366-2004

Intrinsic error and performance indicators under base conditions

Measurement Function	Measurement Range	Accuracy	Resolution
Earth Resistance (R)	0.00Ω~30.00Ω	±2%rdg±3dgt	0.01Ω
	30.0Ω~300.0Ω	±2%rdg±3dgt	0.1Ω
	300Ω~3000Ω	±2%rdg±3dgt	1Ω
	3.00kΩ~30.00kΩ	±4%rdg±3dgt	10Ω
Soil Resistivity (ρ)	0.00Ωm~99.99Ωm	(ρ=2πaR a:1m~100m; π=3.14)	0.01Ωm
	100.0Ωm~999.9Ωm		0.1Ωm
	1000Ωm~9999Ωm		1Ωm
	10.00kΩm~99.99kΩm		10Ωm
	100.0kΩm~999.9kΩm		100Ωm
	1000kΩm~9000kΩm		1kΩm
Earth Voltage	AC 0.0~600V	±2%rdg±3dgt	0.1V

Note: 1. rC max or rP max, additional error≤±3%rdg±5dgt. (rC max: 4kΩ+100R<50kΩ, rP max: 4kΩ+100R<50kΩ)

2. Interference voltage with 5V, additional error≤±5%rdg±5dgt.

Warning: Voltage measurement is strictly prohibited when the instrument is charged, connected to a computer, or supplied with external power

ACCESSORIES :

Tester	1 PC
Meter Case	1 PC
USB Communication Cable	1 PCS
Alkaline dry battery LR14 1.5V	6 PCS
Manual / Warranty Card / Qualification Certificate	1 SET