



DECT SERIES

Digital Clamp Earth Resistance Tester

Motwane's new Digital Clamp on Earth resistance Tester, DECT Series measures earth resistance using clamp on technology. Clamp on is a relatively new method of determining the quality of a ground system. DECT Series can measure Earth Resistance, earth bonds measurement & also measures AC leakage current. It's actually recommended to use it on sites where there are multiple grounds placed in parallel and not required to isolate the ground rod. Simply clamp around the conductor or earthing strip and measure the Earth Resistance fast and accurately. The unique big jaw is particularly suitable where grounding is done by flat steels or copper strips. It has low battery indication & data hold facility within built memory storage of up to 99 test results. DECT Series has got the double insulation level and is protected from external magnetic & electric fields.

Features

- ✓ Clamp-on Ground Resistance Tester
- ✓ 65*32mm jaw size for larger ground rods.
- ✓ Autoranging ground resistance measurement from 0.01 to 1200 ohms with 0.001-ohm resolution
- ✓ AC leakage current range from 0.00mA to 20A with 0.05mA resolution.
- ✓ Configurable alarm value in resistance and current to support your measurement
- ✓ Ergonomic mold, full rubber coating, and hand strap for slip-proof.
- ✓ Auto power off after 5 min.
- ✓ Datalogging with 99 data points
- ✓ Verification resistor confirms the accuracy of the meter
- ✓ Complete with heavy-duty case and verification resistor

Applications

Clamp on measurement method is new and quite unique. It offers the ability to measure the Earth Resistance without disconnecting the ground. This type of measurement also offers the advantage of including the bonding to ground and the overall grounding connection resistances and also indispensable troubleshooting tools to help you maintain uptime. It is recommended that all grounds and ground connections be checked at periodically as a part of normal predictive maintenance plan. If there is an increase more than the acceptable limit during these periodic checks, the engineer should investigate the source of the problem and make the correction to lower the resistance by replacing or adding ground rods to the ground system.

Typically used for

- Measures Earth Resistance of the electrical ground rod and grid.
- Utility Poles/Service Entrance or Meter
- Street Lighting
- Lightning Protection
- Street Cabinets
- Telephone Pedestals and Telecommunication Tower's grounding
- Cell Towers (applications with buried ground ring)
- Pad Mounted Transformer
- Pole Mounted Transformer
- Measures AC leakage current of transformer neutral.
- Conduct field surveys fast and effectively and retrieves & analyses the readings for later reference.

Technical Details

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Model of Series

Model	Jaw Specification	Range Measurement	Range Current	Storage Function	Alarm Function	
DECT 2	65mm x 32mm	0.0Ω - 1200Ω	----	99 Units	✓	
DECT 3	65mm x 32mm	0.0Ω - 1200Ω	0.0mA - 20.0A	99 Units	✓	

Note : “ ✓ ” means available

Ranges and Accuracy of Measurement

Mode	Range	Resolution	Accuracy	
Resistance	0.01Ω-0.099Ω	0.001Ω	± (1% + 0.01Ω)	
	0.10Ω-0.99Ω	0.01Ω	± (1% + 0.01Ω)	
	1.0Ω-49.9Ω	0.1Ω	± (1% + 0.1Ω)	
	50.0Ω-99.5Ω	0.5Ω	± (2% + 0.5Ω)	
	100Ω-199Ω	1Ω	± (2% + 1Ω)	
	200Ω-395Ω	5Ω	± (5% + 5Ω)	
	400Ω-590Ω	10Ω	± (10% + 10Ω)	
	600Ω-880Ω	20Ω	± (20% + 20Ω)	
	900Ω-1200Ω	30Ω	± (25% + 30Ω)	
Resistance	0.00 mA - 9.00 mA	0.05mA	± (2.5% + 2mA)	
	10.00 mA - 99.0 mA	0.1mA	± (2.5% + 10mA)	
	100 mA - 300 mA	1mA	± (2.5% + 20mA)	
	0.30A - 2.99 A	0.01 A	± (2.5% + 0.1A)	
	3.0A - 9.9A	0.1 A	± (2.5% + 0.5A)	
	10.0A - 20.0A	0.1 A	± (2.5% + 1A)	

Resistance Measurement Frequency >1KHz

Measured Current Frequency 50Hz/60Hz

Setting Range of Resistance Alarm Critical Value 1Ω - 199Ω

*Setting Range of Current Alarm Critical Value 1mA - 499mA

Specifications

Instrument Safety IEC/EN61010-1, IEC/EN6010-2-032

Insulation Double Insulation

Pollution Degree Class II

Overvoltage Category CAT III 150V to ground, Max 20A

Degrees of protection IP 30, Group III equipment as per EN 60529 Ed 92

IK 04, as per EN 50103 Ed 95

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Dimensions (LxWxH)	Long elliptic jaw : 285mm x 90mm x 66mm (11x4x3 inches) Round jaw : 260mm x 90mm x 66mm (10x4x3 inches)
Span of Jaw	Long elliptic jaw 35mm, round jaw 32mm
Weight (including batteries)	Long elliptic jaw - 1160g, Round jaw - 1120g
Battery Type	4 x1.5V alkaline LR6 AA battery
Low Battery Indication	 is displayed
Internal Consumption	<50mA
Auto Power off	After 5 minutes of idleness
Display	4 LCD, Sign, decimal point and backlight
Memory Size	99 Units of Reading
Environment (Temperature & Relative Humidity)	Working: -10°C~55°C, 10% RH-90%RH Storage: -20°C~60°C, below 70%RH
Range Shift	Full range automatic shifting
External magnetic field	<40A/m
External electric field	<1V/m
Data upload interface	Rs232 (Optional)

Accessories

■ Earth Tester	01 No.
■ Test Loop	01 No.
■ Carrying Case	01 No.
■ User Manual	01 No.