

Fluke 1507/1503 Insulation Resistance Testers

FLUKE®

Features



- Insulation test range:
 - 1507: 0.01 MΩ to 10 GΩ
 - 1503: 0.1 MΩ to 2000 MΩ
- Insulation test voltages:
 - 1507: 50 V, 100 V, 250 V, 500 V, 1000 V
 - 1503: 500 V, 1000 V
- Save both time and money with Automatic calculation of Polarization Index and Dielectric Absorption Ratio (only available on the 1507)
- Make repetitive tests simple and easy with the 1507's Compare (Pass/Fail) function (only available on the 1507)
- Repetitive or hard-to-reach testing is easy with the remote test probe
- Live circuit detection prevents insulation test if voltage > 30 V is detected for added user protection
- Auto-discharge of capacitive voltage for added user protection
- AC/DC voltage: 0.1 V to 600 V
- 200 mA Continuity
- Resistance: 0.01 Ω to 20.00 kΩ
- Save battery power with auto power off
- Read measurements easily with large, backlit display
- CAT IV 600 V overvoltage category rating for added user protection
- Remote probe, test leads, probes and alligator clips included with



Specifications

AC/DC Voltage Measurement

Accuracy	Range 600.0 V Resolution 0.1 V 50 Hz to 400 Hz ± (% of Rdg + Digits) ± (2 % + 3)
Input impedance	3 MΩ (nominal), < 100 pF
Common mode rejection ratio (1 kΩ unbalanced):	> 60 dB at dc, 50 or 60 Hz
Overload Protection	600 V rms or dc

Earth bond resistance measurement

Range/Resolution	20.00 Ω 0.01 Ω 200.0 Ω 0.1 Ω 2000 Ω 1.0 Ω 20.00 kΩ 0.01 kΩ
Accuracy	± (1.5 % + 3)
Overload Protection	2 V rms or dc
Open Circuit Test Voltage	> 4.0 V, < 8 V
Short circuit current	> 200.0 mA

Insulation specifications

Measurement Range	1507: 0.01 MΩ to 10 GΩ 1503: 0.01 MΩ to 2000 MΩ
Test voltage	1507: 50 V, 100 V, 250 V, 500 V, 1000 V 1503: 500 V, 1000V
Test Voltage Accuracy	+ 20 %, - 0 %
Short circuit current	1 mA nominal
Auto Discharge	Discharge time < 0.5 second for C = 1 μF or less
Live circuit indicator	Inhibit test if terminal voltage > 30 V prior to initialization of test
Maximum Capacitive Load	Operable with up to 1 μF load

Measure Accuracy:	50 V: $\pm(3\% + 5)$ 100 V: $\pm(3\% + 5)$ 250 V: $\pm(1.5\% + 5)$ 500 V: $\pm(1.5\% + 5)$ 1000 V: $\pm(1.5\% + 5)$ to 2000 M Ω , $\pm(10\% + 3)$ above 2000 M Ω
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General Specifications	
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Maximum voltage applied to any terminal:	600 V ac rms or dc
Storage Temperature	-40 °C to 60 °C (-40 °F to 140 °F)
Operating Temperature	-20 °C to 55 °C (-4 °F to 131 °F)
Temperature Coefficient	0.05 x (specified accuracy) per °C for temperatures < 18 °C or > 28 °C (< 64 °F or > 82 °F)
Relative Humidity	0 % to 95 % @ 10 °C to 30 °C (50 °F to 86 °F) 0 % to 75 % @ 30 °C to 40 °C (86 °F to 104 °F) 0 % to 40 % @ 40 °C to 55 °C (104 °F to 131 °F)
Vibration	Random, 2 g, 5-500 Hz per MIL-PRF-28800F, Class 2 instrument
Shock	1 meter drop per IEC 61010-1 2nd Edition (1 meter drop test, six sides, oak floor)
Electromagnetic compatibility:	In an RF field of 3 V/M, accuracy = specified accuracy (EN 61326-1:1997)
Safety	Complies with ANSI/ISA 82.02.01 (61010-1) 2004, CAN/CSA-C22.2 NO. 61010-1-04, and IEC/EN 61010-1 2nd Edition for measurement category IV 600 V (CAT IV)
Certifications:	CSA per standard CSA/CAN C22.2 No. 61010.1-04; TUV per standard IEC/EN 61010-1 2nd Edition
Batteries	Four AA batteries (NEDA 15A or IEC LR6)
Battery Life	<p>Insulation test use: Tester can perform at least 1000 insulation tests with fresh alkaline batteries at room temperature. These are standard tests of 1000 V into 1 MΩ with a duty cycle of 5 seconds on and 25 seconds off.</p> <p>Resistance measurements: Tester can perform at least 2500 earth bond resistance measurements with fresh alkaline batteries at room temperature. These are standard tests of 1 Ω with a duty cycle of 5 seconds on and 25 seconds off.</p>
Size	5.0 cm H x 10.0 cm W x 20.3 cm L (1.97 in H x 3.94 in W x 8.00 in L)
Weight	550 g (1.2 lb)
IP Rating	IP40
Over-range capability:	110 % of range
Included accessories:	TL224 Test Leads, TP74 Test Probes, clips PN 1958654 (red) and PN 1958646 (black), holster and remote probe

Fluke 1507	Insulation Tester Includes: <ul style="list-style-type: none"> ● Remote probe ● Test leads ● Test probes ● Alligator clips ● User documentation
Fluke 1503	Insulation Tester Includes: <ul style="list-style-type: none"> ● Remote probe ● Test leads ● Test probes ● Alligator clips ● User documentation