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Fluke 1507/1503 Insulation Resistance Testers

AC/DC Voltage Measurement

Accuracy	Range Resolution 50 Hz to 400 Hz $\pm$ (% of Rdg + Digits) $\pm$ (2 % + 3)
Input impedance	600.0 V 0.1 V 3 M Ω (nominal), < 100 pF
Common mode rejection ratio (1 k Ω 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 k Ω 0.01 k Ω
Accuracy	$\pm$ (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 M Ω to 10 G Ω 1503: 0.01 M Ω to 2000 M Ω
Test voltages	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 μ F 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 μ F 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

General Specifications

Maximum voltage applied to any terminal:	600 V ac rms or dc
Storage Temperature	-40 $^{\circ}$ C to 60 $^{\circ}$ C (-40 $^{\circ}$ F to 140 $^{\circ}$ 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 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 (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	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.
	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.
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	
Altitude	Operating:	2000 m CAT IV 600 V, 3000 m CAT III 600 V
	Non-operating (storage):	12,000 m
Over-range capability:	110 % of range	
Included accessories:	TL224 Test Leads, TP74 Test Probes, clips PN 1958654 (red) and PN 1958655 (black), holster and remote probe	

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