TECHNICAL DATA

Fluke 1507 Insulation Resistance Tester



Key features

- Rugged, compact advanced insulation resistance tester for electrical contractors and industrial and commercial electricians
- Automatically calculates Polarization Index and Dielectric Absorption Ratio
- Makes repetitive tests simple and easy with a Compare (Pass/Fail) function
- Offers multiple insulation test voltages: 50 V, 100 V, 250 V, 500 V, and 1000 V

Product overview: Fluke 1507 Insulation Resistance Tester

The Fluke 1507 is a versatile, compact, handheld insulation tester for advanced industrial and electrical insulation testing. Its multiple test voltages make it the ideal tool for many troubleshooting, commissioning, and preventative maintenance applications.

Take advantage of the 1507 full feature set to easily and quickly perform advanced insulation resistance testing. Its handy size and light weight make it easy to pack and use. Additional features, like the remote probe, save both time and money especially when performing repetitive tests. And its reasonable price and rugged reliability make it an excellent value.

Other useful capabilities:

- Performs insulation tests from 0.01 MΩ to 10 GΩ
- Includes live circuit detection to prevent insulation test if voltage >30 V is detected
- Includes auto-discharge of capacitive voltage for added user protection
- Measures AC/DC voltage from 0.1 V to 600 V and resistance from 0.01 Ω to 20.00 kΩ
- Provides lo-ohms earth-bond continuity (200 mA)
- Simplifies repetitive or hard-to-reach testing with the remote test probe
- Saves battery power with auto power off
- Presents results on a large, backlit display
- Features CAT IV 600 V overvoltage category rating
- Comes with remote probe, test leads, test probes, alligator clips and one-year warranty
- Accepts optional Fluke TPAK magnetic hanging system to free your hands for other work
- Runs on four AA alkaline batteries (NEDA 15 A or IEC LR6) for at least 1000 insulation tests

Useful resources and rugged tools for Solar professionals

Specifications: Fluke 1507 Insulation Resistance Tester

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	0.01 MΩ to 10 GΩ	
Test voltage	50 V, 100 V, 250 V, 500 V, 1000 V	
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**	±(3% + 5)
	100 V	±(3% + 5)
	250 V	±(1.5% + 5)
	500 V	±(1.5% + 5)
	1000 V	±(1.5% + 5) to 2000 MΩ, ±(10% + 3) above 2000 MΩ
General Specifications		
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	**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 (H x W x L)	5.0 x 10.0 x 20.3 cm (1.97 x 3.94 x 8.00 in)	

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 1958646 (black), holster and remote probe	

Ordering information



Fluke 1507

Fluke 1507 Insulation Resistance Tester

Includes:

- Remote probe
- Test leads
- Test probes
- Alligator clips
- User documentation

Optional accessories	Description
Fluke C101 Hard Case	Heavy duty waterproof tool case with diced-foam interior
Fluke TL81A Deluxe Electronic Test Lead Kit	Ideal for testing electronic equipment and offers versatility with modular test probes, alligator clips, test clips and more.
Fluke C25 Large Soft Case for DMMs	Fits most mid-sized multimeters, process and temperature meters.
Fluke TL225 SureGrip™ Stray Voltage Adapter Test Lead Kit	Electricians know that when you are measuring electrical installations there often appears to be a voltage, even if you know the wires are non energized.

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