

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 2.0 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 | $\pm(3\% + 5)$ |
| | 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°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 M Ω 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

Fluke 1507 CAL

Fluke 1507 Insulation Resistance Tester, with a traceable certificate of calibration with data from Fluke

Includes:

- Remote probe
- Test leads
- Test probes
- Alligator clips
- User documentation
- A traceable certificate of calibration with data from Fluke

Optional accessories

Fluke C101 Hard Case

Description

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.

Optional accessories

**Fluke TL225 SureGrip™ Stray Voltage
Adapter Test Lead Kit**

Description

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.

Fluke. *Keeping your world up and running.®*

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