

175

Electrical Safety Analyzer



Technical Data

The 175 Electrical Safety Analyzer is ideal for performing quick electrical safety checks on electrical systems, medical devices, and physiological instrumentation.

Small enough to fit in a briefcase, the analyzer works well as a bench-top instrument in the laboratory or a portable testing device in the mobile engineer's toolbox.

With its uncomplicated design, the 175 is simple to use. A single master function switch, directly labeled with the test to be performed, leads the user through a complete measurement procedure. The unit features both

IEC601-1 and AAMI test loads. Technicians simply flip a switch to perform leakage measurements to a particular standard.

The analyzer uses simple, yet sophisticated, electronics for true RMS measurement of current and voltage. The 175 also performs dual-lead leakage tests.

Key Features

- Portable
- IEC601-1 and AAMI test loads
- Self-switching 120/240 V operation
- Dual-lead testing

Technical Specifications

Operating Mains Voltage Range: 90 VAC to 240 VAC
Current-Capacity for DUT: 15 A for 10 min

Voltage Measurement

Range: 90 V to 240 V
Accuracy: $\pm 3\%$ of reading ± 1 LSD

Load-Current Measurement

Range: 1 A to 19.99 A
Accuracy: $\pm 5\%$ of reading ± 1 LSD

Resistance Measurement

Range: 0.01 Ω to 19.99 Ω
Accuracy: $\pm 1\%$ of reading ± 1 LSD
Resolution: 0.01 Ω
Current source: 10 mA DC

Leakage-Current Measurement

Range: 0 μ A to 1999 μ A
Accuracy: DC and 25 Hz to 1 KHz: $\pm 1\%$ of reading ± 1 μ A; 1 KHz to 100 KHz: $\pm 2.5\%$ of reading ± 1 μ A; 100 KHz to 1 MHz: $\pm 5\%$ of reading ± 1 μ A
Measurement type: True RMS
Input impedance: 1000 Ω per AAMI ES1-1993, IEC601-1

Environmental Requirements

Operating temperature: 59 °F to 104 °F (15 °C to 40 °C)
Storage temperature: -4 °F to 122 °F (-20 °C to 50 °C)
Relative Humidity: Max 80 % up to 88 °F (31 °C), decreasing linearly to 50 % at 104 °F (40 °C)

General Information

Display: LCD 3.5 digit
Dimensions: 5.25 in L x 7.25 in W x 2.1 in H (13.3 cm L x 18.4 cm W x 5.4 cm H)
Weight: Max weight 2.25 lb (1 kg)

About Fluke Biomedical

Fluke Biomedical is the world's leading manufacturer of quality biomedical test and simulation products. In addition, Fluke Biomedical provides the latest medical imaging and oncology quality-assurance solutions for regulatory compliance.

Today, biomedical personnel must meet the increasing regulatory pressures, higher quality standards, and rapid technological growth, while performing their work faster and more efficiently than ever. Fluke Biomedical provides a diverse range of software and hardware tools to meet today's challenges.

Fluke Biomedical Regulatory Commitment

As a medical device manufacturer, we recognize and follow certain quality standards and certifications when developing our products. We are ISO 9001 certified and our products are:

- FDA Compliant
- CE Certified, where required
- NIST Traceable and Calibrated
- UL, CSA, ETL Certified, where required

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Ordering Information

Model

2249841: ESA175-US 90-265V

Standard Accessories

2185754: Operator's manual
2392409: Test lead 8' black

Optional Accessories

2248864: Soft-sided vinyl carrying case
2392409: Chassis cable, coil cord, 8-foot extended
2392411: Chassis cable, coil cord, 16-foot extended
2392448: External leakage cable, coil cord, 8-foot extended
2231563: External leakage cable, coil cord, 16-foot extended
2185787: North American 220 V adap

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Printed in U.S.A.
LIT048