



SafeTest 50

A simple, rugged and cost-effective medical safety analyzer for general electrical safety testing



The Rigel SafeTest 50 is a rugged, reliable and dedicated medical safety analyzer. It is ideal for testing high volumes of medical and laboratory equipment that does not need patient lead testing.

With a large color display and a color-coded user interface, it's easy to select the required tests with a single key press. A fast selection of the test routine makes the testing process speedy and dependable.

Why buy the SafeTest 50?

- > A compact, reliable and dedicated medical safety analyzer with a large color display and a color-coded user interface
- > Fast selection of tests and fault conditions with a single key press
- > Test to national and international standards, including NFPA 99, IEC 60601 and IEC 62353

Key Features:

- > Compact, rugged and portable design
- > Ready to use, box to bench
- > Manual control of fault conditions
- > Accurate high current, low energy bond testing
- > Leakage testing to NFPA-99, ES 60601, IEC 62353 and 61010
- > Ground bond testing to NFPA-99, IEC 62353 and 61010

Passionate about patient safety.
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See the **SafeTest 50** for yourself, request your FREE live online demonstration today at rigelmedical.com/safetest50



What's in the box?

- > Rigel SafeTest 50
- > Detachable 2m mains lead
- > Ground bond test probe with clip
- > Calibration Certificate
- > Carry Case

Optional Accessories:

- > Ground bond cable (44B154)
- > Replacement carry case (410A950)

Technical Specification:

Ground Continuity

Method	2 wire ZAP technique
Test Current	>± 200mADC into 2Ω
Max Test Voltage	4-24Vrms o/c
Measuring Range (low range)	0.001 - 0.999Ω / 0.001Ω resolution
Measuring Range (mid range)	1.00 - 9.99Ω / 0.01Ω resolution
Measuring Range (high range)	10.0 - 19.9Ω / 0.1Ω resolution
Accuracy	± 1% of value, ± 5mΩ
Circuit Protection	Test inhibited if ≥30VAC or DC at 4mm inputs

Insulation Resistance (Non US versions only)

Measurement	EUT to Earth
Voltage	500VDC @1mA
Maximum O/C Voltage	<600VDC
Range	100K - 20MΩ ± 5% ± 2 digits
Resolution	0.01MΩ
Short Circuit Current	<2mA

Powered Leakage Measurements

IEC 62353	Equipment Leakage (Direct)
IEC / AAMI 60601	Earth + Enclosure Leakage
NFPA-99	Ground + Chassis Leakage
IEC 61010	Touch Leakage, Touch Voltage
Test Voltage	Mains Supply Voltage
Measuring Range	0.1 - 9999µA (0.1 - 8000µA typical for IEC61010)
Measurement/Display Resolution	0.1µA
Accuracy	± 2%, ± 5µA
Mains Reversal	Soft Key
Single Fault Conditions	Open Neutral and Open Ground Via Soft Key
Frequency Response	IEC 60601 - 62353, NFPA-99, and IEC 61010 selectable

Voltage Measurement

Application	L-N, L-E, N-E and touch voltage (IEC 61010)
Range	0.0V - 300VAC
Resolution	0.1V
Accuracy	± 2% ± 5 digits (between 10V - 270VAC)
Mains frequency	45.0 - 66.0Hz
Resolution	0.1Hz
Accuracy	Unspecified

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Service and Warranty

The SafeTest 50 comes with a free upgraded 24-month warranty, subject to terms and conditions, available at

rigelmedical.com/register

Technical Specification (Continued):

EUT Load Current Measurement

Range	0.0A – 20.0A
Resolution	0.1A
Accuracy	±5% ± 2 digits

Power Source

Maximum Current Rating	20A @ 120V / 16A @ 230V
Duty cycle (@21°C ambient)	15A to 20A, 5 min. on/5 min. off 10A to 15A, 7 min. on/3 min. off 0A to 10A, continuous
Mains Power	90-264V 48-64Hz

General Specifications:

Weight	1.1kg/2lbs (unit) 2.2kg/5lbs (complete with accessories)
Size (L x W x D)	225 x 150 x 100mm / 9 x 6 x 4"
Operating Temperature	0 to 40°C
Humidity	0 -98% Relative humidity, non-condensating
Storage Temperature	-10 to 50°C
Altitude	0 – 2000m
Ingress Protection	IP 40
Operating Pollution Degree	2, according to IEC 60529
Overvoltage Category	CAT II 300V

Rev 2

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