

vPad-Mini™

Manual Electrical Safety Analyzer

vPad-Mini enables Biomed and Field Service Engineers to quickly perform basic electrical safety checks on all types of medical equipment, ranging from beds to patient monitors with applied parts.

Key features:

- Tests to NFPA 99, IEC62353, IEC60601, IEC61010 and AAMI-ES1 standards
- High resolution touchscreen LCD
- Applied Parts Testing including Mains On Applied Part
- Small footprint – only 21 x 15 x 9.4 cm (8.4 x 6 x 3.7 in)



Innovation by design

For more information please contact your local Datrend distributor or direct at sales@datrend.com

Electrical Safety Testing Standards

ANSI/AAMI-ES1
 NFPA 99
 IEC 60601
 IEC 62353
 IEC 61010

Safety Tests

Line or Mains Voltage
 Point-to-Point Voltage
 Accessible Voltage (IEC 61010)
 Equipment Load Current
 Power Cord or Protective Earth (PE) Resistance
 Point-to-Point Resistance
 Enclosure or Chassis Leakage Current (AAMI-ES1; NFPA 99)
 Touch Current (IEC 60601; IEC 61010)
 Earth Leakage Current (AAMI-ES1; IEC 60601)
 Equipment Leakage Current (IEC 62353)
 Point-to-Point Leakage Current
 Lead Leakage to Ground or Patient Leakage
 (NFPA 99; AAMI-ES1; IEC 60601)
 Lead Isolation or MAP Test (AAMI-ES1; IEC 60601; IEC 62353)

Instrument Specifications

i. Voltage Measurement

Line or mains voltage
 Range.....90 to 264 V rms
 Accuracy $\pm(2\% \text{ of reading} + 0.2 \text{ V})$
 Point-to-point voltage
 Range.....0 to 300 V rms
 Accuracy $\pm(1\% \text{ FS} + 0.2 \text{ V})$
 Accessible voltage
 Range..... 0 to 150 V rms
 Accuracy $\pm(1\% \text{ FS} + 0.2 \text{ V})$

ii. Load Current Measurement

Ranges 0 to 1.999 A ac rms
 2.00 to 19.99 A ac rms
 Accuracy $\pm(2\% \text{ reading} + 0.2\text{A})$
 Duty cycle 0 A to 10 A, continuous
 10 A to 15 A, 7 min. on/3 min. off
 15A to 20 A, 5 min. on/5 min. off

iii. Resistance Measurement

Mode Four-terminal, fully isolated
 Test Current 1A pulsed, 0.2A rms
 Range 0.000 to 2.000 ohm
 Accuracy $\pm(1\% \text{ of reading} + 0.01 \text{ ohm})$

iv. Leakage Current Measurement

Mode..... True-RMS
 Patient Load Selection..... AAMI or IEC
 Crest factor ≤ 3
 Ranges..... 0.0 to 199.9 μA
 200 to 1,999 μA
 2.0 to 19.99 mA
 Accuracy
 DC to 1 kHz..... $\pm(1\% \text{ of reading} + 1 \mu\text{A})$
 1 to 100 kHz $\pm(2\% \text{ of reading} + 1 \mu\text{A})$
 100 kHz to 1 MHz..... $\pm(5\% \text{ of reading} + 1 \mu\text{A})$
 Isolation test voltage..... 100% $\pm 5\%$ of AC supply

User Interface

Display.....5" colour LCD (854 x 480)
 User Controls..... Capacitive touchscreen
 Modes of Operation..... Manual

Dimensions

21 x 15 x 9.4 cm. (8.4 x 6 x 3.7 in)

Weight

2.6 lb (1.2kg)

All specifications subject to change without notice.



130 - 4020 Viking Way, Richmond BC, Canada V6V 2L4
 Phone: 604.291.7747 • Fax: 604.294.2355
 Toll-free (North America only): 800.667.6557
 Email: customerservice@datrend.com

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