FLUKE®

Biomedical

medTester 5000C

Automated Biomedical Equipment Test System

Technical Data

The medTester 5000C is an automated system designed for electrical safety testing and performance verification. It is compatible with most Fluke Biomedical testing devices and a majority of the popular Computerized Maintenance Management Systems (CMMS) in the US. The medTester 5000C provides a completely integrated solution for standardized and streamlined testing and record keeping.

The medTester 5000C can accept inventory and equipment testing procedures from the CMMS and control Fluke Biomedical testing devices in the field. The tool automatically runs all the tests and stores detailed results. Technicians can either print data or transfer it to CMMS for simple, automatic record keeping and exceptional documentation. The medTester 5000C automated system can provide up to a 50-percent saving in time and money over manual testing.

Modules are available for each Fluke Biomedical testing device that the medTester 5000C controls, for expanded capability, according to specific needs.

The medTester 5000C also serves as a stand-alone device to run integrated automated or manual electrical safety tests. The tool comes with ten preprogrammed and five user-programmable electrical-safety-testing sequences for one-button testing of virtually every piece of equipment in the hospital.

Key features

- Easy verification of biomedical equipment to manufacturer's specifications
- Ten preprogrammed and five user-programmable electrical-safety-testing sequences
- Convenient transfer of equipment inventory and testing procedures from CMMS
- Module options to automate testing of most Fluke Biomedical testing devices
- Automatic storage of detailed test results for printing or transfer to CMMS
- Compliant with ANSI/AAMI (1993) and NFPA-99 (2005) standards
- 20-A device testing with GFCI protection
- Wedge hardware option for extended serial port use, optional PC-style keyboard and barcode scan gun

Technical specifications

Modes of operation

Fully equipped, with four operational modes
Manual, autosequence, medCheck, and remote control

Input power supply
Line-voltage/frequency input:
115 V ac ± 10 % / 60 Hz
Test-receptacle type: USA, 20 A

System/line voltage

Range (full scale)
200 V

Accuracy
± 5 % of range ± 1 LSD

Resolution
0.1 V

Equipment current

Range (full scale)
0 A to 20 A

Accuracy
± 5 % of range

Resolution
0.01 A

Ground resistance

Range (full scale)
0 Ω to 2 Ω

Accuracy
± 1 % of range

Resolution
0.001 Ω (1 mΩ)

Current source
100 mA dc

Measurement type
True four-terminal technique

Test leads
Kelvin (2) insulated clip

Leakage-current/voltage gradient

Ranges (full scale)
200 µA and 2000 µA or mV

Accuracy
DC and 48 Hz to 1 kHz, ± 1 % of reading; 1 kHz to 100 kHz, ± 2.5 % of reading; 100 kHz to 1 MHz, ± 5 % of reading

Resolution
0.1 µA or 0.1 mV

Measurement type
True-rms (autoranging)
(AC + DC or DC-only response)

Test-load selection
ANSI/AAMI ES1 1993

Test-load impedence
1000 Ω ± 1 % at DC

Isolation test

Test selection (full scale)
Patient leads to ground

Lead combinations
All leads; or individual leads – RL, RA, LA, LL, and V1/V6 (V1 through V6 tested as a single lead)

Available current
Limited by internal 120 kΩ resistor

Resolution
0.1 µA

Ranges (full scale)
200 µA and 2000 µA

ECG binding posts

10 posts, American Hospital Association color-coded RL, RA, LA, LL, V1-V6. Compatible with both 3.2-mm and 4-mm pins and disposable snap electrodes

Performance waveforms

ECG performance test waves (lead I, Vp-p)
Square wave: 2 Hz, 1 mV
DC pulse: 4 s, 1 mV
Sine wave: 0.5 Hz, 10 Hz, 40 Hz, 60 Hz, and 100 Hz, 1 mV
Square wave: 1 kHz, 1 mV
Triangle: 2 Hz, 1 mV
CMRR: 60-Hz sine wave with 1-kΩ imbalance in LA
Normal sinus: 30 BPM, 60 BPM, 120 BPM, and 240 BPM

Arrhythmias

Atrial fibrillation; second-degree A-V Block, Type 1; premature atrial contractions; missed beat at 80 BPM and 120 BPM; PVC 1 left; PVC 2 right; multifocal PVCs; PVC 1, R on T; A pair of PVCs; run of 5 PVCs; run of 11 PVCs, MF; right bundle branch block; ventricular tachycardia; ventricular fibrillation; asystole

Environmental requirements

Operating temperature
15 °C to 55 °C (59 °F to 95 °F)
Storage temperature
0 °C to 50 °C (32 °F to 122 °F)

General information

Clock/date functions
Time and date formats: 24 hour (hh:mm:ss) and mm/dd/yy

Safety certification
Canadian Standards Association
CSA C22.2 No 231-M89 (1989)

Display characteristics
Type: 80-character, alphanumeric liquid crystal display (LCD)
Size: 2 lines x 40 characters
Backlight: LED with adjustable brightness control

Dimensions (LxWxH)
25.4 cm x 35 cm x 10.2 cm
(10 in x 13.8 in x 4 in)

Weight
5 kg (11 lb)

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Ordering information

Models

2247382 medTester 5000C (20 A, 115 V ac)
2585098 medTester 5000C/B, CMMS Connectivity Bundle

medTester 5000C (2247382)

Standard accessories

2243153 medTester 5000C User/Service Manual
2392871 Soft Vinyl Accessory Pouch
2392617 Two Kelvin Cables
2392639 Two Ground-Pin Adapters

medTester 5000C/B (2585098)

Standard accessories

2247382 medTester 5000C
2245136 RS-232/Printer Module
2245149 100-Record Storage Module
2245151 Expanded Record Storage Module
2245172 Data-Transfer Module
2245185 medCheck Module
2245212 CMMS Interface Module

Optional accessories

2245136 Performance Enhancement Module 2: RS-232 Printer
2245149 Performance Enhancement Module 3: 100 Records
2245151 Performance Enhancement Module 4: Expanded Memory
2245160 Performance Enhancement Module 5: Waves/Extended Test
2245172 Performance Enhancement Module 6: Data Transfer
2245185 Performance Enhancement Module 7: medCheck
2245197 Performance Enhancement Module 8: Defibrillator
2245201 Performance Enhancement Module 9: IV Pump
2245212 Performance Enhancement Module 10: CMMS Interface
2245220 Performance Enhancement Module 11: ESU
2245235 Performance Enhancement Module 12: SpO2
2245247 Performance Enhancement Module 13: Pacer
2245258 Performance Enhancement Module 14: NIBP
2245264 Wedge Adapter (eight 25 in serial ports, as well as AT or PS/2 keyboard port)
2245061 Mini PC-Style External Keyboard (83 keys, AT or PS/2, wedge adapter required
2245092 Laser Barcode Gun (wedge adapter required)
2245515 5000C-PRINTER, Brady TLS Test Label Printer Kit medTester 5000C V 5.10 or greater and115 V ac only
2248606 Multipurpose Hard-sided Carrying Case for medTester 5000C with wedge adapter
2248587 Multipurpose Hard-sided Carrying Case for medTester 5000C without wedge adapter
Call Interface Cables for specific test-device connection

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

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

Fluke Biomedical.
Better products. More choices. One company.

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4/2008 2804434 D-EN-N Rev B