# 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

## 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** | ± 1 % of reading dc + 3 LSD from 48 Hz to 1 kHz<br>± 2.5 % of reading + 3 LSD from 1 KHz to 100 KHz<br>± 5 % + 3 LSD from 100 KHz to 1Hz | |
| **Resolution** | 0.1 µA or 0.1 mV | |
| **Measurement type** | True-rms (autoranging)<br>(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 |
|---|---|---|
| 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) | |

# Ordering information

## Models
**5000C** medTester 5000C (20 A, 115 V ac)
**5000C/B** medTester 5000C/B, CMMS Connectivity Bundle

## medTester 5000C
### Standard accessories
**9508-0272** Operators Manual
**9530-0045FG** Soft Vinyl Accessory Pouch
**9501-0032FG** Two Kelvin Cables
**9503-0004FG** Two Ground-Pin Adapters

## medTester 5000C/B
### Standard accessories
**5000C** medTester 5000C
**5000C-02** RS-232/Printer Module
**5000C-03** 100-Record Storage Module
**5000C-04** Expanded Record Storage Module
**5000C-06** Data-Transfer Module
**5000C-07** medCheck Module
**5000C-10** CMMS Interface Module

## Optional accessories
**5000C-02** Performance Enhancement Module 2: RS-232 Printer
**5000C-03** Performance Enhancement Module 3: 100 Records

**5000C-04** Performance Enhancement Module 4: Expanded Memory
**5000C-05** Performance Enhancement Module 5: Waves/Extended Test
**5000C-06** Performance Enhancement Module 6: Data Transfer
**5000C-07** Performance Enhancement Module 7: medCheck
**5000C-08** Performance Enhancement Module 8: Defibrillator
**5000C-09** Performance Enhancement Module 9: IV Pump
**5000C-10** Performance Enhancement Module 10: CMMS Interface
**5000C-11** Performance Enhancement Module 11: ESU
**5000C-12** Performance Enhancement Module 12: SpO2
**5000C-13** Performance Enhancement Module 13: Pacer
**5000C-14** Performance Enhancement Module 14: NIBP
**5000C-WEDGE** Wedge Adapter (eight 25 in serial ports, as well as AT or PS/2 keyboard port)
**9513-0212** Mini PC-Style External Keyboard (83 keys, AT or PS/2, wedge adapter required
**9513-0221** Laser Barcode Gun (wedge adapter required)
**5000C-PRINTER** 5000C-PRINTER, Brady TLS Test Label Printer Kit medTester 5000C V 5.10 or greater and 115 V ac only
**9530-0066** Multipurpose Hard-sided Carrying Case for medTester 5000C without wedge adapter
**Call** Interface Cables for specific test-device connection

## 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. Highly credentialed and equipped with a NVLAP Lab Code 200566-0 accredited laboratory, Fluke Biomedical also offers the best in quality and customer service for all your equipment calibration needs.

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 and ISO 13485 medical device certified and our products are:
• NIST Traceable and Calibrated
• UL, CSA, ETL Certified, where required
• NRC Compliant, where required

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