

CardioMem CM 3000

Holter ECG recorder series



Holter or long-term ECG recordings are intended to detect and diagnose arrhythmias and/or symptoms which could be caused by arrhythmias. The quality of such a diagnosis depends significantly on the quality of the acquired ECG recording. Fast, error-free report generation can only be accomplished if all cardiac events are detected correctly. CardioMem**, the digital recorder series for our CardioDay** Holter ECG analysis system, supports the user in all phases of the workflow by provided high-quality ECG recordings.

CardioMem – The tool for recording Holter ECGs

CardioMem can record up to three ECG channels along with additional pacemaker information for up to 10 days. Models are also available that register the thorax impedance for the detection of sleep-related breathing disorders.

CardioMem acquires and stores the raw ECG waveforms without any form of data reduction or preanalysis. The graphic display allows the user to easily check the electrode placement and ECG amplitudes before starting a recording. Recorder operation is intuitive using the menu guided navigation on the display. Constant monitoring of the electrode contacts detects loose or failing electrodes, thereby avoiding errors in the subsequent evaluation. The data are stored on a compact flash memory card, so that even if the batteries are removed or reach end of life, the recorded data are retained. Either an alkaline standard battery or a rechargeable NiMH battery can be used to power the device.

CardioMem CM 3000-12 BT

This recorder provides continuous acquisition of a 12-channel ECG for up to 96 hours. Data can be exchanged wirelessly between the recorder and a PC using an integrated bidirectional Bluetooth interface. Prior to starting a recording, the online viewer in CardioDay can be used to transfer patient demographic data to the recorder and to check the quality of the ECG waveforms. During the recording, the user can send event markers to the recorder or printout online ECGs at any time.

CardioMem CM 3000 Z and CM 3000 Z/SM

These practical recorders are particularly useful for users who cannot or do not wish to carry out the ECG analysis themselves. The recorded data can be transferred via Internet or, alternatively, the memory cards can be sent directly to a scanning centre for evaluation and report generation.

Features

- Check ECG quality on the graphic display
- Registration of 2, 3 or 12-channel ECG waveforms
- Recordings up to 10 days
- Detection of pacemaker pulses
- Simultaneous recording of the thorax impedance for evaluation of the respiratory signal
- Open-lead detection
- Referring physician version for scanning centres
- Light weight, sturdy and energy-efficient



Technical Specifications

	CM 3000 Z	CM 3000 Z/SM	CM 3000	CM 3000 SM	CM 3000 SM/A	CM 3000-12 BT
General						
Dimensions: 108 x 79 x 22 mm	■	■	■	■	■	
Dimensions: 108 x 86 x 22 mm						■
Weight with one battery: 140 g	■	■	■	■	■	■
Battery type: 1.5 V alkaline LR06 / AA or 1.2 V NiMH HR06 / AA	■	■	■	■	■	■
Option: Battery compartment for two batteries			■	■	■	■
Controls: Event key and four control keys	■	■	■	■	■	■
Display: Graphic display with 128 x 64 pixels, monochrome	■	■	■	■	■	■
Operating time for long-term ECG recordings						
With one LR06 / AA battery	24 h	24 h	120 h	120 h	120 h	48 h
With two LR06 / AA batteries			240 h	240 h	240 h	96 h
Patient cables (ECG channels)						
2 channels, 5 lead wires (2 independent, bipolar channels)	■	■	■	■	■	
3 channels, 7 lead wires (3 independent, bipolar channels)			■	■	■	
12 channels, 10 lead wires (Einthoven, Goldberger, Wilson leads)						■
6 channels, 4 lead wires (Einthoven and Goldberger leads)						■
Parameter						
Analog bandwidth: 0.05 ... 75 Hz	■	■	■	■	■	
Analog bandwidth: 0.05 ... 120 Hz						■
Input dynamic range: ± 6 mV	■	■	■	■	■	■
Pacemaker detection: unipolar, bipolar and biventricular		■		■	■	■
Open lead detection	■	■	■	■	■	■
Additional channels: thorax impedance variations					■	
Storage/Transmission						
Storage type: CompactFlash** memory card, type I	■	■	■	■	■	■
Digital signal acquisition: 1024 Hz / 12 Bit	■	■	■	■	■	■
Data storage: 128 Hz / 8 Bit	■	■				
Data storage: selectable up to 1024 Hz / 12 Bit			■	■	■	■
Memory capacity: 128 MB	■	■				
Memory capacity: up to 2 GB			■	■	■	■
Data transfer mode: per flashcard reader	■	■	■	■	■	■
Wireless transmission of online ECG: Bluetooth Class 2						■
Classifications						
Product classification: IIa in accordance with MDD 93 / 42 / EEC	■	■	■	■	■	■
Classification of applied part: CF (Cardiac Floating)	■	■	■	■	■	■
Ingress protection: IP 20	■	■	■	■	■	■
UMDNS code: 12-388	■	■	■	■	■	■
Operating conditions						
Temperature: +5 ... +45 °C	■	■	■	■	■	■
Relative humidity: 10 ... 95 %, non-condensing	■	■	■	■	■	■
Storage and transport conditions						
Temperature: -20 ... +65 °C	■	■	■	■	■	■
Relative humidity: 5 ... 95 %, non-condensing	■	■	■	■	■	■

Scope of delivery: recorder, patient cable, pouch with straps, ECG electrodes, battery, user manual

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GE imagination at work

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