

clickholter

clickholter is a portable ECG signal recorder (Holter) able to save data without the need for removable media. The data is rapidly and safely transferred to a Personal Computer for subsequent analysis, thanks to the USB connection interface.

The technical solutions adopted ensure the maximum patient comfort - minimum size, low weight, reliable recording and the best working conditions for the operators: two different work modes "stand alone" and "interactive"-, dual recording quality control system, fast downloading of recordings, cancellation of the test-patient association risks.

In particular, the two different work modes mean that:

- the operators can prepare the patient, check the signal quality and activate recording without any external instruments;
- all the preparation and recording programming phases can be controlled directly at the PC. With its protected USB connection and the CARDIOLINE® Holter software, the recorder can be connected to a Computer, the patient ECG signal can be checked, the recorder can be "customised" with the data of the patient being tested, the duration of the recording can be set and pace-maker recognition can be programmed.

clickholter has the following principal characteristics:

- 3 lead recording in simultaneous mode for 24/48 hours;
- Pace-maker impulse detection on a dedicated channel;
- CF type connections. The device can be connected to the patient at the PC at the same time, to monitor the ECG on the screen;
- Dual recording start-up system;
- Low weight and small size;
- Powered by 1.5 V AA alkaline batteries;
- Suitable for recordings on for neonatal weighing less than 10 kg;
- High signal resolution.

clickholter is compatible with CARDIOLINE®, Holter Software: see the specific program documentation for details.



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Technical specifications

ECG channels	3
Type of acquisition	continuous digital acquisition
Recording medium	internal flash memory
Memory size	64Mbyte
Patient impedance detection ..	independent for each lead
Saturation detection	independent for each lead
Service connector	USB cable
Resolution	10 bits; 11 microV/bit LSB
Frequency response	0.05 -55 Hz
Dynamic AC	± 300 mV signal superposition
CMRR	> 60dB
Sampling frequency	250 Hz per channel for 24 hours or 125 Hz per channel for 48 hours
Input impedance	10 Mohm
Patient cable:	5 wires, 7 wires optional
Event-marker	through keyboard
Data transfer	through USB cable
ECG display	in real time 3 channels on PC monitor
Power supply	2 x 1.5 V AA batteries
Dimensions & Weight.....	110x83x17 mm and 160 gr (including batteries)
Indications.....	the device may be used to perform neonatal ECGs on patient of less than 10 kg in weight and for recordings of a maximum duration of 24h (sampling at 250 Hz/channel)
Safety standards	EN 60601-1 (1990), EN 60601-1/A1 (1992), EN 60601-1/A2 (1995), EN 60601-1/A13 (1995), IEC 60601-2-47/Ed.1 (2001); EN 8960601-1-1/Ed.2; 93/42/EEc; ANSI/AAMI EC38 1994
Class and Type (IEC 601-1) ...	Internal Power Supply, Type CF
Class (Directive 93/42/EEC) ...	Ila
Conditions of use	temperature between +10 and +45° C; relative humidity between 25% and 95%; atmospheric pressure between 700 hPa and 1060 hPa
Storage conditions	temperature between -10 and +45° C; relative humidity between 10% and 95%; atmospheric pressure between 500 hPa and 1060 hPa

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