

# CardioSecur Pro

22-Lead ECG

Outshining the Gold Standard

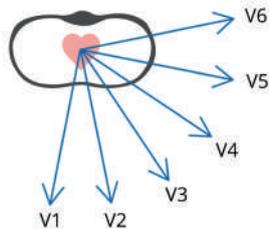


Made  
in  
Germany

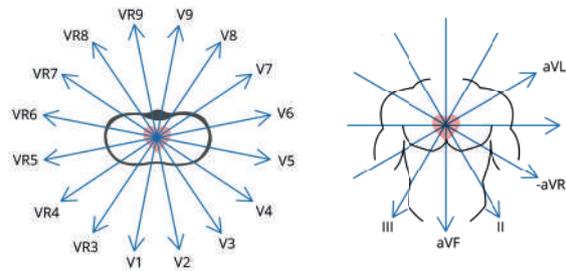
# 360° View of the Heart

**CardioSecur Pro** is a mobile, 22-lead ECG for medical personnel running on iPhone/iPad. It accomplishes much more than a standard 12-lead ECG. The ECG recordings are comprised of the standard 12-leads plus optionally V7-V9 and VR3-VR9. In addition to complex arrhythmias, CardioSecur makes it possible to recognize infarcts of the anterior, lateral, and posterior walls of the heart. The European Society of Cardiology guidelines recommend examining the posterior and right walls of the heart. CardioSecur is the only system that practically implements this guideline into its measurement process.

Classic 12-lead ECG:  
A 100° view of the heart



CardioSecur 22-lead ECG:  
A 360° view of the heart

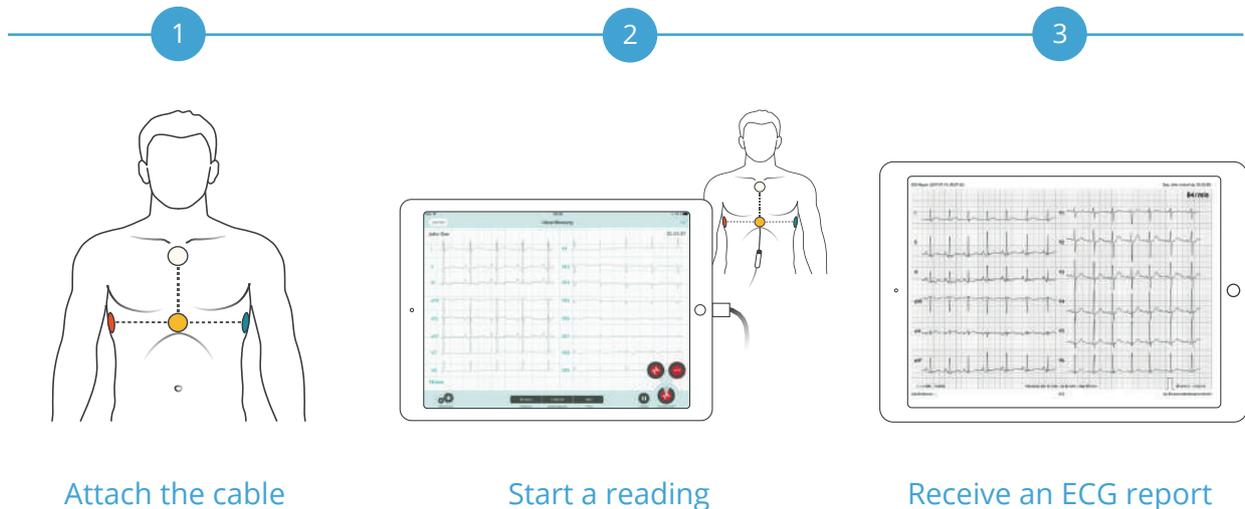


The ultra-lightweight cable (50 g) requiring only 4 electrodes and an app is truly one of a kind worldwide. Like the stethoscope, CardioSecur can be used wherever it is needed: **directly with the patient**. Recording a comprehensive ECG has never been so quick and intuitive. The app's communication features are ground-breaking in comparison to those of a conventional ECG. CardioSecur's lead system has been validated in numerous studies. CardioSecur Pro is approved as a class IIa medical product.

# Application

The **CardioSecur ECG cable** connects directly to your iPhone/iPad. Data integration options allow CardioSecur connecting to your patient administration software or the hospital information system (HIS). CardioSecur also offers options for parametric ECG measurement and automatic ECG interpretation.

Receive an ECG report in just 3 easy steps:



Thanks to the **manageable size** and easy communication features, you can take CardioSecur with you anytime and anywhere to make a comprehensive diagnosis. With the aid of the zoom function you can analyse the details of individual ECG segments. 10,000 minutes of ECG recordings require 1 GB of storage capacity. These can be archived on your device or database and sent to a colleague as a PDF or printed.

# All Benefits at a Glance



## Mobile & Quick

Only 4 electrodes  
& an ultra-light  
cable



## Powerful

Diagnosis of posterior wall  
infarctions & complex  
arrhythmias



## Data Protection

EU-GDPR compliant on  
proprietary servers located  
in Germany and Finland



## Customizable

Number of leads,  
automatic interpretation &  
parametric measurement

- A system specifically designed for trained personnel
- Features may be individually combined
- Option: 22-leads
- Option: automatic ECG interpretation or parametric ECG measurement
- Option: data integration to your patient administration software or the hospital information system (HIS)
- The CardioSecur app and all future updates
- Continuous further development and maintenance of the EU-GDPR compliant medical device platform
- Local archive of your ECG recordings in the app
- Allocate ECGs to each patient and insert findings
- Send or print ECGs directly from your iPhone or iPad (e.g. Email, iChat, Airdrop, AirPrint)

# Technical Details

- 12-/22-Lead ECG (I, II, III, aVR, aVL, aVF, V1-V6 plus V7-V9 and VR3-VR9)
- Ultra-lightweight ECG cable (only 50 g) with only 4 electrodes
- ECG recordings of up to 30 minutes each
- Communication via data integration, email, iMessage, iCloud Drive, AirDrop and AirPrint
- ECG System: Bipolar, measurements from 3 channels
- ECG Storage: 10,000 minutes of recording per 1 GB
- Heart rate: 18 to 256 beats per minute
- Bandwidth: 0,05 to 40 Hz, Sampling rate: 250 Hz
- Disposable electrodes: YD43-6-W, Type P-00-S/xx
- CardioSecur is available in the App Store (requires iOS 7.0 or higher)
- Optimised for iPhone, iPad mini, iPad and iPad Pro

CardioSecur uses an effective electrode system based upon the EASI standard<sup>1,2</sup>. CardioSecur has further developed the EASI standard so that it only requires four electrodes. The positioning of the 4 electrodes capture the entire heart and outputs all 22-leads (I, II, III, aVR, aVL, aVF, V1-6, plus V7-V9 and VR3-VR9).

1) Accuracy of the EASI 12-Lead electrocardiogram compared to the standard 12-lead electrocardiogram for diagnosing multiple cardiac abnormalities; J Electrocardiol. 1999; 32 Suppl: 38-47. 2) Comparison of standard and derived 12-lead electrocardiograms registered by a simplified 3-lead setting with four electrodes for diagnosis of coronary angioplasty-induced myocardial ischemia; Bonaventura K, Wellnhofer E, and Fleck E.; European Cardiology. 2012 Jul; 8(3): 179.

# CardioSecur

Knows Your Heart



CardioSecur is an innovation of Personal MedSystems GmbH  
ISO 13485 certified by TÜV SÜD



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Download the CardioSecur Pro app in the App Store:

