

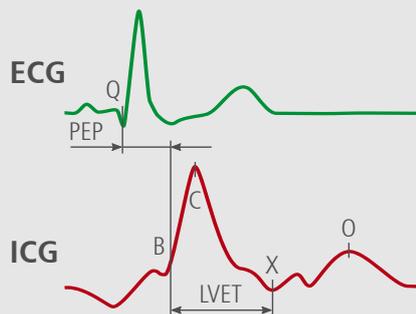
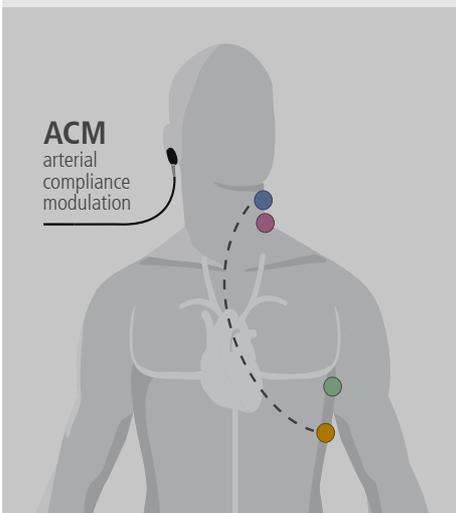
CardioScreen® 1000

A COMPUTER-BASED
ICG PATIENT MONITOR

IMPEDANCE CARDIOGRAPHY (ICG)

Changes in volume and velocity of blood in the aorta cause variations in the thoracic bio-impedance which is measured and displayed as the ICG waveform. Innovative algorithms are applied to this signal to provide key haemodynamic parameters non-invasively and continuously.

By means of our unique **ACM-Technology** in combination with the new **4TECT Sensor-Application** the accuracy of the measuring method could be considerably increased and its application could be made even more simple - **a new generation of Impedance Cardiography**.



- Q Beginning of ventricular depolarisation
- PEP Pre-Ejection Period
- B Opening of aortic valve
- C Maximum systolic flow
- X Closing of aortic valve
- O Opening of mitral valve
- LVET Left Ventricular Ejection Time

PARAMETERS¹



FLOW

- HR Heart Rate
- SV/SI Stroke Volume/Index
- CO/CI Cardiac Output/Index



CONTRACTILITY

- VI Velocity Index
- ACI Acceleration Index
- HI Heather Index
- PEP Pre-Ejection Period
- LVET Left Ventricular Ejection Time
- STR Systolic Time Ratio
- FTc Corrected Flow Time



FLUID

- TFC Thoracic Fluid Content



VASCULAR

- SVR Systemic Vascular Resistance

¹ Selection of available parameters

FEATURES

Non-invasive

Enables 100% non-invasive measurement of haemodynamic parameters

Real-time

Continuous (beat-to-beat), real-time monitoring and recording of curves and 27 parameters

Miniaturised

Small, portable and USB-driven hand-held device

Easy-to-use

Only 4 sensors necessary
Application-oriented through different screens for optimal data presentation in various clinical settings
Displayed curves and parameters user-selectable

Integrable & connectable

Connectable to any Windows Panel PC (touch screen), PC or Notebook
Interface to patient monitors, such as Philips/HP (VueLink / IntelliVue / IntelliBridge)
Offline data analysis and data export (e.g. Excel)



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APPLICATIONS

♥ HAEMODYNAMIC MONITORING

The CardioScreen® 1000 enables non-invasive measurement and monitoring of haemodynamic parameters, such as stroke volume and cardiac output. Therefore, it can support clinical decision-making processes by:

- trending haemodynamic changes for timely intervention
- monitoring effects of interventions/drug titration to optimise treatment
- identifying the development of oedema by measuring TFC

The CardioScreen® 1000 has been designed for the operating room, intensive care unit, emergency department and intermediate care.

♥ HYPERTENSION MANAGEMENT

As hypertension is the result of change in one or a combination of several haemodynamic modulators (vasoactivity, intravascular volume, inotropy), correct treatment of hypertension should include the identification and correction of haemodynamic modulators.

The CardioScreen® 1000 can help to identify the cause of hypertension in order to optimise and validate the appropriate possible medication.² In this way, an individualised therapy is offered with the most effective antihypertensive combination of drugs (beta-blockers, ACE inhibitors, diuretics and others) at the optimal dosage for each patient.

² Blood pressure must be entered manually

💧 FLUID MANAGEMENT

The CardioScreen® 1000 supports optimal fluid management to dose intravenous fluids according to the patient's response in a simple and completely non-invasive way. There are two options available to the clinician:

The **Passive Leg Raising Test** allows to evaluate the fluid responsiveness of a patient. The user is guided step by step through the procedure.

The **Fluid Challenge** monitors the haemodynamic parameters during the administration of an infusion and suggests whether it is appropriate to administer another bolus.

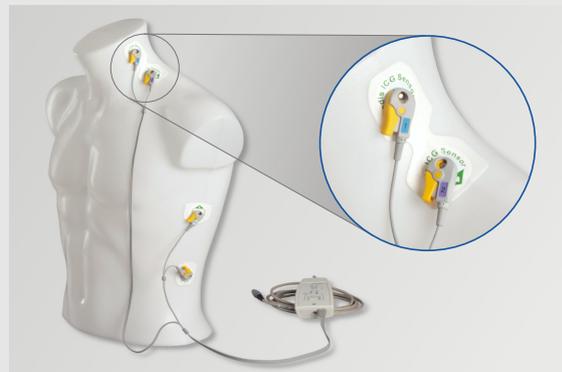
♥ PACEMAKER ADJUSTMENT

In terms of haemodynamic improvement and left ventricular reverse modelling, optimisation of AV and VV delays is important in patients who underwent a Cardiac Resynchronization Therapy (CRT) device implantation. Individual settings are required because the timing of the optimal AV and VV conduction differs from patient to patient.

Non-invasive measurement of haemodynamic parameters, such as stroke volume and cardiac output with the CardioScreen® 1000 is a simple, non-invasive, cost-effective and reliable tool to optimise CRT devices.



TECHNICAL DATA	
Channels	Impedance Cardiography (ICG)
Dimensions	63 x 140 x 30 mm (w x h x d)
Weight	approx. 350 g
Display	external computer
Power Supply	via USB port



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