

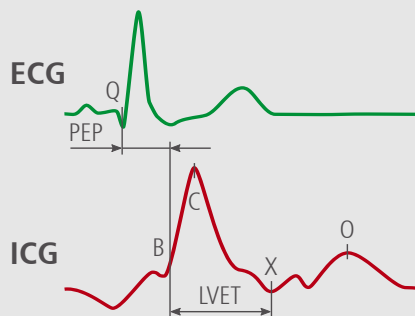
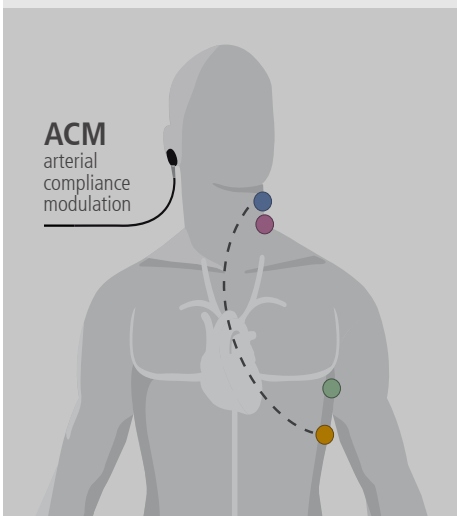
CardioScreen® 1000

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

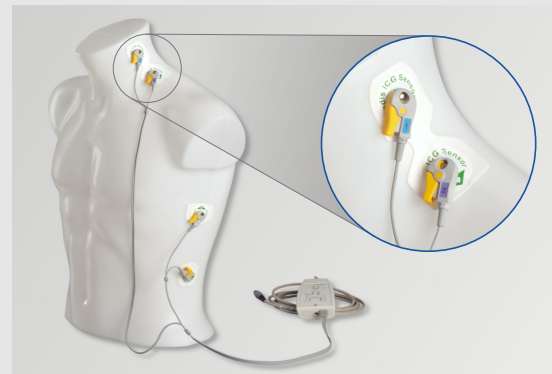
In terms of haemodynamic improvement and left ventricular reverse modelling, optimisation of AV and VV delays is important in patients who underwent a Cardiac Resynchronization Therapy (CRT) device implantation. Individual settings are required because the timing of the optimal AV and VV conduction differs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